A Work Project presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

PORTUGUESE WINE SME COMPETITIVENESS

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04-01-2021

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Abstract

Pimentel is a Douro valley wine SME, intending to increase its international scope. Hence, to derive potential foreign markets, a PESTEL-based geographical analysis was performed, resulting in a country ranking and clustering of 103 countries, from which the United Kingdom, Ireland, Germany and South Korea were selected to perform an in-depth analysis. Given their potential, Germany and South Korea were chosen for direct exporting, being provided with prospect partners and marketing recommendations, based on the STP and 4P frameworks. A financial assessment through the Discounted Cash Flow method proved the expansion to both markets to be viable.

Keywords: Entry Strategy, Germany, Internationalization, Market Selection, SME Competitiveness, Strategic Analysis, South Korea, Wine

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

The present Work Project takes as central organizational challenge the Internationalization of a Portuguese Wine SME operating in the Douro valley, aiming to provide a comprehensive foreign expansion plan. In answering the central problem, a thorough methodology and analysis comprising group and individual contributions will be developed, to select the markets for entry and their internationalization and marketing strategies, as well as to diagnose the project's possible financial outcomes and overall feasibility. Such investigations will culminate in a general discussion and proposed solutions for the project, that will consider the developed examinations in providing a comprehensive conclusion for the organizational challenge.

1. *Company Background*

As one of the most renowned properties and winemakers in the Douro valley area, Pimentel is located near the river's left bank in Lamego county, Portugal. While its estate is first documented in the 18th century, its 75 acres of vineyards seeded in a UNESCO World Heritage Site date back to the 16th century. Pimentel's commitment has consistently been the production of Port and Douro wines but in 1995, it started a Wine Tourism venture, welcoming visitors to the property and selling wines in its wine shop. Throughout the years, the property explored its available offers to consumers, by involving visitors in supply chain activities (mainly in the harvesting, by picking and crushing grapes) and offering accommodation in its four stars Wine House Hotel.

As disclosed by the company, a new cycle began in 2012 when two French partners responsible for a food and wine distribution chain in their home country, acquired the business and joined the family-run administration in defining a clearer focus. Together with NOVO BANCO, they engaged in further pairing the wine quality and wine tourism. Indeed, Pimentel wine and wine tourism businesses have grown from only six employees in 2012 to seventy permanent workers in 2018, attracting and motivating the best talent with wages above the industry standards.

In 2018 a new project began, supported by Portugal 2020 with €3.29 million and by BPI 2020 with €1.65 million. This project promotes innovation by creating a new accommodation style in the shape of wine barrels, providing a one-of-a-kind experience in the middle of the vineyards. Furthermore, 24 new rooms, a wine therapy spa, an expansion of the wine shop capacity and the creation of new multipurpose rooms will be concluded by the end of 2020.

2. The Portuguese wine industry

As a Small-Medium Enterprise (SME) within the Portuguese wine industry, Pimentel is subject to sectorial opportunities and constraints. Porter's Diamond framework displays how home-based advantages can be used so that an industry thrives at an international level. Overall, despite the industry fragmentation and regulations established by the European Union (EU) and the Portuguese State entities, Portugal leverages on factor and demand conditions, as well as strong related industries, beneficial for the international wine market.

2.1. Porter's Diamond

I. Factor conditions

Factor conditions refer to the country's specific characteristics regarding factors of production, considered fundamental for firms to become competitive in a given industry. Factor conditions comprise two main categories: natural and human resources (Vlados 2019).

Portugal holds 199 thousand acres of vineyards, one of the largest extensions in Europe (Jornal de Negócios 2017). The country's geographical position grants producers with great climacteric and soil conditions to grow diverse grape types. Indeed, Portugal is among the EU countries with the highest grape varieties, amounting to 285, translating directly into the ability to produce an array of unique wine qualities (Wines of Portugal 2020). Nevertheless, despite the rising efforts from producing companies and academic establishments to develop qualified workers, it lacks specialized talent, with viticulture not yet perceived as an attractive area. Such supply shortage results in higher salaries for the existing labour force (Almeida 2017).

II. Demand conditions

Demand influences the behaviour of firms towards improvement and innovation. Thus, a sophisticated home demand, in terms of composition and size, improves industry performance (Vlados 2019). The latest report from the International Organization of Vine and Wine, showed that Portugal has the world's highest per capita consumption of wine, of around 60L (Figueiredo and Ramos 2003). Such demand is mainly served by domestic producers, with Portuguese consumers showing a clear preference for national wines (Agricultura e Mar Actual 2019).

Wine consumption has transitioned in the past decades from being essentially consumed by workers for its energy benefits, towards being perceived as a social drink. This shift is associated with an acquired sophistication of consumers' tastes and a search for excellence, creating a positive pressure on producers to increase wines' quality (Agricultura e Mar Actual 2019). Moreover, consumption amongst younger consumers altered, with a tendency of wine being substituted by beer (Jornal de Notícias 2013). This incentivized winemakers to innovate and produce less "traditional" wines to cater to this segment (Agricultura e Mar Actual 2019).

III. Related and Supporting Industries

Related and Supporting Industries are the set of players that provide firms with complementary products or simply the opportunity to share activities (Vlados 2019). The wine sector is supported by industries mainly responsible for specialized production equipment, as well as glass bottles and cork, necessary for packaging purposes. The Portuguese cork industry, represented by Corticeira Amorim, is the biggest worldwide, leading exports in 2017 (APCOR Portuguese Cork Association 2019). The transformation of glass into recipients' industry is represented by AIVE (Associação dos Industriais de Vidro de Embalagem), composed of 3 main companies: BA Glass, Vidrala and Verallia Portugal (Associação dos Industriais de Vidro de Embalagem 2020). Furthermore, Wine Tourism has boosted wine producers' visibility, with winemakers leveraging the increasing interest in wine-related experiences, such as harvesting, foot treading and wine tastings (Correia, et al. 2014).

IV. Firm strategy, structure and rivalry

Firms' strategy and structure are mostly affected by the country's current circumstances in the economic and political spectrum. These forces can influence, positively or negatively, how firms are managed or compete among themselves. As for rivalry, it is viewed as a necessary driver for innovation among competing firms (Vlados 2019).

The wine sector is highly regulated by the EU and the Portuguese government, subjecting each industry player to autonomy constraints. These players comprise cooperative entities that represent small wine producers and/or grape growers, private winemakers that grow their grapes, or winemaking companies that buy grapes from third parties (A. G. Goncharuk 2017).

To defend a uniform image of the Portuguese wine sector at an international level, public administrative entities were created. These include Instituto do Vinho e da Vinha (IVV) which guarantees that all wine producers comply with EU guidelines and IVV's quality policies. This entity also supports and enhances the internationalization of the sector (IVV 2020).

Such monitoring is also replicated at a regional level. For instance, in the Douro Valley, wine production is certified by Instituto dos Vinhos do Douro e do Porto (IVDP), responsible for upholding the designation of the Douro and Port origin, and the Duriense geographical indication (eportugal 2020). To safeguard the continuity and preservation of Port wines, IVDP has the authority to set a maximum ceiling on Port wine sales to all regional winemakers, with commercialization usually restricted to 30% of the wines produced in the previous year

(Appendix 1). If a company is to experience a strong surge in demand, this may be responded through the acquisition of wine or grapes from local certified vineyards (IVDP 2015).

3. Company Profile and Analysis

In determining Pimentel's readiness to internationalize, the company’s strengths and weaknesses must be assessed. An internal analysis of the company was drawn, highlighting relevant insights on Pimentel's financial and tangible resources, as well as on its organizational structure and basis of its competitive advantage, essential to pursue global market opportunities.

3.1. Organizational Structure

While the Pimentel name and estate encompass both the Hotel and the wine harvesting production, which employ approximately seventy workers, these businesses constitute separate corporate entities. With the scope of this project being wine sales, the focus lies on Pimentel S.A., which at a managing level includes the Administration, with two General Directors. Both businesses share a Financial Department which accounts for a Financial Director and four employees. Furthermore, the Commercial Department accounts for a Sales Manager, as well as one Export Manager. Nevertheless, the Administration also plays a valuable role in establishing commercial ties, providing support to the department. Furthermore, the company has an internal designer, responsible for Pimentel’s brand design and labelling. Lastly, the Production department has three cellar workers and the Viticulture one counts on five permanent field workers. Pimentel also displays an internal Oenology department, relying on a consultant as well as a director which is a family member of the founders.

3.2. Supply Chain and Operations

Pimentel leverages on its historic expertise to guarantee excellence across all stages of its supply chain, especially the ones performed in-house. The company’s supply chain is similar to the industry’s, in broad terms: grape growing, wine production, distribution, retailer, the consumer.

Nevertheless, depending on the final consumer, it may shorten, as is the case of selling in the hotel's wine shop (that does not involve distributors nor retailers) (A. G. Goncharuk 2017).

Figure 1: Wine Industry Supply Chain

As a member of the IVDP, Pimentel depends on this entities' classification of the quality of its vinery parcels (IVDP 2019). This ranking, from A to H, has the final goal of ensuring the region's wine quality, with higher classifications corresponding to greater harvests permitted. This assessment is made through a punctuation system that depends on the soil, climate, and agricultural factors (*Appendix 2)*. Thus, to maximize the harvest, Pimentel aims for the highest classifications and grows grapes with this goal. The harvest is both made by locals and visitors. To increase capacity, Pimentel also acquires grapes from partners like Vale Abraão and small producers in Vale da Vilariça, ensuring they have high classifications as well.

The wine production is made in-house, supervised at all stages by the oenologist, a member of the administration's family, with unique expertise on Pimentel's terroir. The steps of this stage consist of stemming, crushing, fermentation and storage.

The stemming phase is performed by specialized equipment whilst the crushing is both performed by Pimentel's workers and visitors using the foot treading technique (as part of the experience). Crushing is not done by machines as Pimentel believes that this traditional technique frees more flavour and colour, which is optimal in the production of fortified wines. After these first steps, grapes are transformed in must and left for fermentation in stone vats. In the fermentation process, the must undergo racking, fining, filtration, and refrigeration to originate different wines.

The process is monitored by Pimentel's oenologist, whose assessment of attributes such as the grape types, grape quality, sugar concentration and alcohol level, defines the wine type to be produced. After the fermentation process, the wine is stored in French imported barrels, with storage being supervised by IVDP. Storing times depend on the final product and can be done both inside the bottles and in barrels, with the barrels' size and wood surface also affecting the flavour. The bottling is done in-house with supplies from different partners.

The distribution stage lies in transporting the final products to national and international markets and relies on partners for that end. Transportation is usually done by truck, at a national level, and by truck or sea, at an international level. Most partners are food and beverage distributors with relevance in the markets Pimentel is present in. The distribution leads towards supermarkets or restaurants, connecting Pimentel with the final consumers.

3.3. Products

Pimentel's portfolio comprises Douro and Port wines as well as other products, such as olive oil. Nevertheless, wines are the focus of the company.

I. Douro Wines

Douro wines are relatively recent to the international market, which pressures producers to practice relatively low prices given these wines' quality (Hogg and Rebelo, Rumo estratégico para o setor dos vinhos do Porto e do Douro 2017). Throughout the years, these wines have become more relevant overseas but are still lagging in comparison to Port wines' notoriety (Hogg and Rebelo 2017). Douro wines are the category most sold in Pimentel's portfolio with a representative growth in both quantities sold and revenue, from 2018 to 2019, of 32% and 40%, respectively, as shown in *Appendix 3.* In the latter year, Douro wines represented about 68% in value and 47,5% in volume as showcased in *Appendix 4*.

This category comprises sparkling and still wine, with the latter being divided into Red, White and Rosé. These are further subdivided quality-wise in Terroir, Superior and Reserve. Pimentel's Douro portfolio also considers a Late Harvest, a sweet white wine produced with Sémillion grapes. Within this category, the most sold products in 2019 were Pimentel's Terroir Red and Superior Red. Other relevant products were Pimentel's Terroir White, Reserve Vinhas Velhas, Grand Reserve Touriga Nacional and Superior White. Considering price position, the most affordable products are the Terroir line (around €9) and the more premium products are the Grand Reserves, Vale Abraão and the Sparkling wine. *Table 1* shows the main products from Pimentel's Douro wine portfolio and their percentage in the 2019 sales.

Table 1: Douro Product Price and Percentage of 2019 sales

<table>
<tr><th colspan="4">Douro Wines</th></tr>
<tr><th>Category</th><th>Product</th><th>Price (Pimentel e-commerce)</th><th>% of 2019 sales</th></tr>
<tr><td rowspan="8">Red Wines (76,6%)</td><td>Pimentel Terroir Red</td><td>9€</td><td>23%</td></tr>
<tr><td>Pimentel Superior Red</td><td>12€</td><td>22,5%</td></tr>
<tr><td>Pimentel Reserve Red</td><td>15€</td><td>3,9%</td></tr>
<tr><td>Pimentel Reserve Vinhas Velhas*</td><td>19€</td><td>10,7%</td></tr>
<tr><td>Pimentel Grand Reserve Touriga Nacional</td><td>29€</td><td>5,7%</td></tr>
<tr><td>Pimentel Red Grand Reserve Roriz</td><td>Not available</td><td>0,3%</td></tr>
<tr><td>Pimentel Lagar Nº1</td><td>39€</td><td>3,7%</td></tr>
<tr><td>Pimentel Vale de Abraão</td><td>58€</td><td>4,8%</td></tr>
<tr><td rowspan="5">White Wines (18,6%)</td><td>Pimentel Terroir White</td><td>9€</td><td>11,4%</td></tr>
<tr><td>Pimentel Superior White*</td><td>12€</td><td>4,7%</td></tr>
<tr><td>Pimentel Reserve White</td><td>15€</td><td>Not available</td></tr>
<tr><td>Pimentel White Grand Reserve*</td><td>39€</td><td>1,4%</td></tr>
<tr><td>Pimentel Late Harvest</td><td>24€</td><td>0,8%</td></tr>
<tr><td rowspan="2">Rosé (4,3%)</td><td>Pimentel Terroir Rosé</td><td>9€</td><td>3,2%</td></tr>
<tr><td>Pimentel Rosé Reserve*</td><td>19,50€</td><td>1,1%</td></tr>
<tr><td>Sparkling (0,5%)</td><td>Pimentel Douro Sparkling Wine</td><td>65€</td><td>0,5%</td></tr>
<tr><td colspan="4">*Wines awarded by Wine Enthusiast Magazine (over 88 classification)
Note: 2,3% correspond to wines with bottle size different from the standard 750 ml or1,5l as well as products outside the main portfolio such as Pimentel Reserve Tony Carreira and Pimentel Lagar nº8.</td></tr>
</table>

II. Port Wines

Port is a fortified wine that can vary in colour and sweetness, with a history that dates to the 17th century. While its commercialization is well established with a solidified reputation overseas, sales have been decreasing in the last decade, revealing a necessity to diversify and innovate within this category (Hogg and Rebelo, Rumo estratégico para o setor dos vinhos do Porto e do Douro 2017). Pimentel's diverse Port wine portfolio represented 25% of 2019 total sales and 7% of quantities in the same year (*Appendix 4)*.

The company commercializes Ruby wines, characterized by their ruby colour, stemming from a short oxidation process, as well as Tawny Port, which presents a deeper red colour. Additionally, Pimentel offers a product line of Aged Tawnies, which accounted for 58% of the Port category revenues in 2019. These are aged in wood, with the labelled number of years representing the average age of the different harvests within the product (in Pimentel's case, it varies from 10 to 40 years). On a higher-end side, there is a Vintage Selection, representing wines of very high quality made in exceptional years, certified by IVDP and Late Bottled Vintages, also of notable quality. Additionally, the company offers the premium Harvest line, produced from a single harvest. Finally, Pimentel produces White Port and, on an innovative side, a Pink Port. The Port portfolio also includes Moscato, a sweet refreshing wine made from a specific grape variety that is usually perceived as a separate category, besides the sweetest tasting Port, Lágrima (Wines of Portugal 2010).

Within this category, the best-selling product is the Port 10 years, representing 21% of 2019 sales of the Port category. In terms of pricing, Pimentel Tawny, White, Ruby and Pink Port are the most affordable products (around €15 to €17), and the Port Harvest category the more premium line. The following table highlights the main products from Pimentel's Port wine portfolio and their percentage in the 2019 sales.

Table 2: Port Product Price and Percentage of 2019 sales

Port Wines and Percentage of 2019 sales			
Category	**Product**	**Price (Pimentel e-commerce)**	**% of 2019 sales**
Tawny (69%)	Pimentel Tawny Port	15€	9,0%
	Pimentel Tawny Reserve Port	17€	2,4%
	Pimentel Aged Tawny Port 10 Years	21€	21,0%
	Pimentel Aged Tawny Port 20 Years	38€	10,4%
	Pimentel Aged Tawny Port 30 Years	60€	13,2%
	Pimentel Aged Tawny Port 40 years	106€	13,3%
Ruby (2,2%)	Pimentel Ruby Reserve Port	17€	2,2%
Port Harvest (4,8%)	Pimentel Port Harvest '62	450€	0,8%
	Pimentel Port Harvest '63	Not available	0,9%
	Pimentel Port Harvest '69	385€	1,1%
	Pimentel Port Harvest '00	150€	0,1%
	Pimentel Port Harvest '04	75€	0,4%
	Pimentel Port Harvest '05	70€	0,5%
	Pimentel Port Harvest '07	60€	0,4%
Vintage (8,9%)	Pimentel Vintage Port '03	Not available	1,2%
	Pimentel Vintage Port '12	55€	1,1%
	Pimentel Vintage Port '16	65€	4,6%
	Pimentel Vintage Port '17*	65€	2,0%
LBV (2,6%)	Pimentel Late Bottled Vintage (LBV) Port	25€	2,6%
White (5,6%)	Pimentel White Port	15€	5,6%
Pink (1,9%)	Pimentel Pink Port	17€	1,9%
Port Lágrima (2,8%)	Pimentel Port Lágrima	Not available	2,8%
Moscato (1,2%)	Pimentel Douro's Moscato Wine	17€	1,2%
*Wines awarded by Wine Enthusiast Magazine (over 88 classification) Note: 3,5% correspond to Port products not in the main portfolio			

To lure customers towards purchasing through its e-commerce platform, which provides the company with better margins, Pimentel offers premium discovery packs. These include for instance four Douro and two Port bottles for €200 whereby four are awarded products as well as quantity packs of six or twelve units of the same product with free delivery.

3.4. Consumers & Channels

Pimentel can serve various segments in terms of preferences, ages and behavioural variables, by providing both traditional and more irreverent and innovative wine varieties and diversification in terms of grape varieties, categories and flavour. Furthermore, the company practices price discrimination by offering premium, regular, and lower-end wines, hence serving customers with different willingness to pay. Hence, the portfolio enables Pimentel to cater to a broad, rather than a specific segment, such that consumers cannot be easily profiled as typical Pimentel clients. Hence, the core differentiation amongst the served clients is based on the utilised channels, with Pimentel selling at both an off-trade and on-premise level.

In what regards off-trade retail, consumers can purchase Pimentel's products through the established sales channels, online and in the estate’s wine shop, or via retailers. Indeed, retailers play a major role in Pimentel’s business, providing a higher degree of visibility and scale. In Portugal, the company works with top vendors such as SONAE and Jerónimo Martins, partially adapting its labelling and packaging for the different players, to avoid price conflicts. In general terms, Pimentel only displays the lower end of the portfolio in national retailers. At an international level, retailers are viewed as strategic partners that facilitate the process of entering a new market, being responsible for selecting the right products to introduce in foreign markets and for promoting them effectively.

Similarly, Pimentel's on-trade presence entails national and international restaurants, mainly served through distributors. Unlike retail vendors, this channel is catered to the higher-end, premium products of the portfolio. Although Pimentel is present in several restaurants, its feature on the wine list of L' Atelier de Joël Robuchon, a restaurant owned by the chef with the most Michelin stars worldwide, is a noteworthy achievement.

3.5. Competitive Advantage

Pimentel's insertion in IVDP shapes its strategy towards the collective goal of promoting Douro Valley landscapes and viniculture activities in the national and international market (Hogg and Rebelo, Rumo estratégico para o setor dos vinhos do Porto e do Douro 2017). The final goal is to ensure constant innovation and quality improvement of the Douro Demarcated Region's wines, generating the necessary awareness for the producers of this area. Nevertheless, despite the overall regional reputation, each winemaker seeks either ways of differentiating their brand or of reducing costs relative to other players.

Despite located in the Douro Valley, in terms of costs, Pimentel benefits from a flat rather than a harder to harvest steep-slope terroir, as is common in the region, thus displaying higher efficiency per square meter and lower production costs.

Similar to other vineyards, Pimentel aims to differentiate by offering a unique experience to its visitors, building on its property's activities. With the sale of Port and Douro wines as Pimentel's core business, the lodging and restaurant serve as vehicles to further increase company visibility. With this focus, the continuous commitment and investment in both wine and wine tourism, granted Pimentel as SME leader in 2019, with the company being considered one of the main players in the Douro Valley. Pimentel's pursuit of a strong brand reputation is crucial when selling in retailers or restaurants, as consumers are overwhelmed by similar products with few distinctions amongst them (Ramos, et al. 2003).

Therefore, one differentiating element Pimentel leverages on is its innovative approach, reflected in the development of novelty wines such as Pink Port. The company also promotes a modernizing image of wine beyond a conventional drink to be consumed on its own, by developing campaigns and video tutorials that display its use as an appealing ingredient for different cocktails and beverage mixes. Indeed, even if some competing producers display similar-sized or larger portfolios, Pimentel's products still capture the differing preferences for dry and sweet wines within the available categories, in addition to varied price sensitivities.

3.6. Financial Analysis

Pimentel's effort towards national and international coverage has been fomented by solid and stable financial results, as shown by the figures from 2017 to 2019, displayed *(Appendix 5)*. From 2017 to 2018, sales grew at most 4%, with the presence in foreign markets being constant. However, from 2018 to 2019, sales rose 24.69%, with Pimentel further expanding internationally. Altogether, sales growth during the three-year period analysis mirrors a favourable result for the company's revenue base. Conversely, from 2017 to 2018, Net Income decreased 23.10%, which may be explained by the slight growth in sales in comparison with the increase in operating expenses. However, from 2018 to 2019, despite the continuous growth in operating expenses, Pimentel's Net Income increased 7.12% as sales grew by 24.69%.

A ratio analysis provided further insights on Pimentel's financial performance, with the company showing satisfactory rates in liquidity terms and being capable of meeting its short-term obligations. The same applies to long-term obligations and solvency, nevertheless, in the financial leverage ratio, for instance, Pimentel seemed to present high values. According to Carreira et al, SMEs in the wine industry, in overall terms, can meet both short-term and long-term obligations, however, they are not financially autonomous in comparison to most big players (Carreira and Diz 2013). This may be a reason why an SME needs to lever its operations through external funds, resulting in higher financial leverage ratios.

Pimentel seems to be financially prepared to carry its international expansion, as it had a steady performance during the period under analysis. Nevertheless, it must carefully manage and control the debt to be employed to finance its activities. In fact, the financial leverage ratio in 2019 was 2.03, meaning that more than half of the company's assets were financed by debt.

3.7. Current International Presence

Pimentel has leveraged on its competitive advantages, supply chain, operations and human talent throughout the years to become one of the most relevant SMEs in Portugal. Together with stable financial results and support from the administrative entities, Pimentel has a growing focus on expanding its presence internationally, having been present in up to 21 countries across the Asian, American, and European markets through exporting.

The international market accounted for approximately 35% of sales in the period under analysis, amounting to €1.4 million in 2019. Nevertheless, Portugal is still the largest market, representing the remaining 65% of sales, having grown 39% in 2019 *(Appendix 6).Appendix 7* displays in detail the foreign markets Pimentel had sales from 2017 to 2019, with Table 3 highlighting the top 5 countries with highest Douro and Port sales in 2019.

Table 3: Top 5 International Markets of Douro and Port Sales in 2019 (Sales of last three years and respective Growth Rates)

Country	Sales in 2017	Sales in 2018	Sales in 2019	Growth of Sales 2017 to 2018	Growth of 2018 to 2019
Pimentel Douro	**2 344 289 €**	**2 456 169 €**	**3 441 025 €**	**5%**	**40%**
Portugal	1 642 734 €	1 917 926 €	2 625 499 €	17%	37%
France	336 418 €	327 312 €	378 980 €	-3%	16%
Brazil	7 506 €	16 650 €	166 372 €	122%	899%
China	189 561 €	96 896 €	149 576 €	-49%	54%
United States	26 293 €	14 608 €	20 639 €	-44%	41%
Denmark	3,262 €	3 069 €	19 374 €	-6%	531%
Pimentel Port	**869,850 €**	**963 274 €**	**1 248 392 €**	**11%**	**30%**
Portugal	544 184 €	633 343 €	793 031 €	16%	25%
France	90 349 €	169 043 €	207 611 €	87%	23%
Russia	0 €	0 €	72 266 €	-	-
China	138 986 €	73 102 €	41 470 €	-47%	-43%
Denmark	9 472 €	16 670 €	39 258 €	76%	135%
Brazil	1 299 €	0 €	28 501 €	-100%	-
United States	43 290 €	17 280 €	13 273 €	-60%	-23%

Table 3 highlights the most relevant foreign markets for Pimentel in 2019 were France, Brazil, China, Russia, Denmark and the United States (US). Hence, it is not only important to analyse the sales and growth in these countries but also the strategies implemented. The next chapter will assess wine SMEs' general entry strategy and portray Pimentel's market approaches.

3.8. Current Internationalization Strategy

Wine sector SMEs usually lack a clear internationalization vision and tend to rely on partners to manage their presence in a given foreign market, such that their most common internationalization strategy tends to be direct exporting. This method implies a direct relationship with a foreign partner without any domestic third-party involvement (The International Trade Administration 2016). These relationships usually arise from the attendance of wine trade fairs and events which are a valuable way to be exposed to worldwide contacts, such as importers and distributors (Couto e Ferreira 2017). Once established, these partnerships are usually not actively nurtured, such that SMEs become fully reliant on the importers, failing to build the necessary market knowledge to maximize the countries' potential.

Pimentel employs an internationalization strategy similar to the above-mentioned, usually relying on its partner's inputs and efforts to grow its relevance abroad. Specifically, its entry in the Russian market surged from attending the country's main food and drink fair, Prodexpo, where Pimentel presented its portfolio and business to potential local partners (Prodexpo 2020). Consequently, the company built a presence in a premium supermarket chain enabling the market to become one of the most relevant in Port wine sales. In fact, the most popular products are the Port LBV, Reserve and Aged Tawnies. Similarly, the presence in Denmark is also based on direct exporting but focuses in on-trade premium channels. However, this market displays sales in both Douro and Port with the best sellers in each category including Pimentel's Late Harvest and Vinhas Velhas Douro options as well as the Port Aged Tawnies.

Nevertheless, some markets' entry arises from circumstances other than trade fairs, as brand visibility and connections, which play an important role in internationalization. Indeed, both China and France represent countries in which the company's administration had a crucial part in establishing market presence. Specifically, the relationship with the Chinese partners arose from personal acquaintances of the administrators, being closely managed by the Administration. This partnership differs from several others, as the partner actively takes potential customers to visit Pimentel's estate. Furthermore, the company adjusts its products and labelling to this market, as Chinese consumers' tastes are considerably different to Western ones. In fact, in 2017, Pimentel even launched a specific product for this market, the Douro Lagar nº8. In 2019, the preferred products were the Reserve Vinhas Velhas, Red Terroir and Superior Douro wines as well as Port Vale Abraão and Aged Tawnies.

Parallelly, the presence in France, Pimentel's largest foreign market, is rooted on the effort of the company's French investors, that had ties with the Administration since before 2012. Indeed, this market's rapid growth can be attributed to the investors' ownership of a supermarket chain, easily placing Pimentel's products on their shelves. The most popular products in this market also include the Red Terroir and Superior wines, the Reserve Vinhas Velhas and the Port Aged Tawnies.

Furthermore, partnerships can also emerge from foreign demand, rather than an active pursuit by Pimentel. For instance, as a Portuguese-speaking market, Brazil is an export destination in which the importers displayed a large interest in stocking Pimentel's wines, rather than the company actively seeking such contacts in the market. The best-selling products in this market include the red and white Terroir and Superior options of the Douro portfolio, in addition to Reserve Vinhas Velhas.

3.9. SWOT Analysis

Ultimately, Pimentel intends on utilizing its growing reputation to further expand its domestic and international scope, by exporting to new markets and consolidating its position in the ones it is present in. The SWOT Framework provided an insight on the firm's internal capabilities, by assessing its strengths and weaknesses, as well as the market's opportunities and threats.

Table 4: Pimentel's SWOT Analysis *(as per the authors' view and scientific research)*

STRENGHTS	WEAKNESSES
• High varieties of Port and Douro • High quality of Port and Douro wines • Historical and cultural background, dating back to Pombaline • Traditional practices in grape harvesting and stepping, considered as the best method to release grape flavouring • Douro region as UNESCO World Heritage Site and oldest demarcated and regulated region in the world (Museu do Douro 2020) • Protection and preservation of Port and Douro wine denomination (IVDP 2020) • Pimentel awarded as Best of Wine Tourism in 2015, 2016, 2017 and 2020 • Strong recognition of activities and events held at estate and wine shop • Motivated and growing human talent • Flat and easier to harvest terroir	• Small and fragmented vineyards in region as hinders to outsourcing • Limited number of top ranked (A, B, C) vineyards in region (hinders outsourcing) • Restrictions to wine yearly sales (due to rules imposed by IVDP) (IVDP 2015) • Bigger and more reputed players within the market, with greater brand loyalty and shelf recognition • Reduced product marketing and communication (dependence on external agencies domestically and on retailers abroad, Wine Tourism as the main engine of national marketing) • Limited relationship with importers, partners and distributors • Production-driven organization culture • Domestic focus by human resources (lack of resources to tackle international markets)
OPPORTUNITIES	**THREATS**
• Portugal as a trending destination: increasing international recognition of the culture, gastronomy, products and territories • Growing international popularity of Wine Tourism (and related activities) in Douro region	• Strong and fragmented competition within European market • Other exporting countries as more reputable and notorious winemakers (French and Mediterranean) • Greater production and distribution capacity of other exporting countries and players (Loureiro 2011)

• Highly globalized markets: consumer curiosity and lower entry barriers (Loureiro 2011) • Strong immigrant and expats presence abroad (Loureiro 2011) • Globalized partners and distributors network available	• Regional Douro wines undifferentiated abroad: Portuguese wines perceived as one • Uneducated and uninformed wine consumers (unawareness of quality): Douro region wines not as highly regarded by most international consumers as other wines

In facing its highly prestigious export competitors, Pimentel is impaired by insufficient shelf recognition as a Douro and Port producer. However, favourable internal conditions, such as the company's varied portfolio, location and traditional production, may be leveraged to explore the arising opportunities and Portugal's growing viticultural notoriety.

4. International Markets Assessment and Selection

Pimentel's favourable internal capabilities and strong financial results allow it to progressively expand cross-borders. In addition to an assessment of organizational readiness, Pimentel must screen countries based on external factors and industry variables, to determine the most suitable market opportunities. Country rankings and clustering are valuable tools in determining markets' attractiveness, allowing to extract potential prospects to be further studied.

4.1. PESTEL and Industry Variables

103 prospect countries were analysed on their macro and industry-specific potential, through a total of 72 variables. To comprehensively assess the external forces that might affect Pimentel's international expansion, the PESTEL framework was employed. Thus, countries were assessed on a political, economic, social, technological, environmental, and legal level.

Political forces reflect the political stability of a country and the degree of involvement of the government in the economy, including taxes, corruption, and effectiveness. These factors are important to ensure smooth-business operations in a market. Some of the assessed variables within this dimension were Trade Freedom Index, Government Effectiveness, Political Stability and Absence of Violence as well as Regulatory Quality. A detailed explanation of the studied variables is provided in *Appendix 8***.**

To determine economic performance, factors reflecting the national wealth and consumer purchasing power were collected. These variables encompass GDP per capita, Ease of Doing Business Score, Terms of Trade, Transfer and Convertibility Risk as well as Competitiveness Index. Further clarification on the studied indicators is displayed in *Appendix 9*.

Social forces reflect the country's demographic characteristics involving population size and growth rate, education, and income distribution, for instance. It should include social factors that affect the wine industry, such as lifestyle habits or cultural impediments. The variables analysed include per capita Alcohol Consumption, Population above fifteen, Social Progress Index and the number of Portuguese Emigrants. The social variables are shown in *Appendix 10*.

Technological factors reflect the efforts made by each country in investments towards technologies that affect operations in the industry. R&D investment, Logistics Performance Index and Infrastructure Quality are among the assessed factors. *Appendix 11* presents a description of the variables examined.

Environmental factors, as climate change and pollution have become ever more urgent matters, with ecological consciousness increasing and being reflected in legislation. Therefore, two indexes concerning the risk of natural disasters, environmental health and ecosystem vitality of each country were included in the analysis, further described in *Appendix 12*.

Additionally, it is crucial to assess the legal environment and the extent to which the laws and legislations of each country will impact (positively or negatively) the private sector. Thus, an overall assessment was made through the Rule of Law Index and indicators regarding property rights, contract law and the overall strength of legal rights were assessed. More information on the variables evaluated is displayed *in Appendix 13*.

Lastly, microenvironment variables of each country were assessed. To describe the wine industry factors like Wine Imports, Portuguese Wine Exports Value, Wine Consumption per capita, Average Price of Wine and Number of Wineries were considered. To provide a further analysis of the Douro and Port market, Douro Sales and Port Sales, as well as their growth, were evaluated. *Appendix 14* depicts a thorough description of these industry-specific factors.

The studied indicators were standardized as Z-scores through the SPSS software, with some being inverted to allow for comparison and facilitate interpretation.

4.2. Weight Strategy

Upon gathering the variables for a comprehensive analysis of each country, each indicator was assigned a weight, considering its significance. As such, the weight strategy developed comprises 5 categories, from Strong to Weak. The Medium value was obtained by dividing 1 by the total number of variables, 72. Then the Medium-Weak and Medium-Strong values were obtained through the formula $Medium \pm \frac{Medium}{2}$ and the Strong and Weak were obtained by $Medium \pm \frac{Medium}{1,5}$. Thus, the weights assigned ranged from 0.46% to 2.31% *(Appendix 15)*.

The variables appointed with greater weights were industry-specific ones, namely the Contribution of Wine Sector to each country's GDP, Wine Consumption per Capita, Port Wine Sales and Douro Wine Sales. Moreover, several variables were considered Medium-Strong as they represented crucial political, economic, social, and technological aspects and characterized relevant industry factors - such as competition and the Portuguese wine market presence worldwide. The remaining variables were considered mostly Medium weight, as they represented factors that define more comprehensively a country's PESTEL aspects, impacting Pimentel international expansion. Lower weights were assigned to variables either less relevant, like the risk of natural disasters; with weaker country information, like sales taxes on wine; or related with volatile forecasts, like GDP Growth rate from 2021 onwards *(Appendix 16)*.

4.3. Country Ranking

Having defined the relative weight of each variable, the final ranking of countries was performed through the weighted sum of their standardized (and for those that applied, inverted) values for each country. The final results and scores are displayed in *(Appendix 17)* with the top twenty countries being displayed in the table below. The results provided the most attractive markets for Pimentel, based on the studied indicators, and showed that the company is already present in twelve of the top twenty countries. However, despite the usefulness of these rankings, the decision on which market to enter should also account for the prospect markets commonalities, either among themselves or with Pimentel's current markets, for similar strategies and procedures to be employed.

Table 5: Top Twenty Country Prospects

Ranking Position	Countries	Final Score	Pimentel had sales in 2019
1	United States	0,92	Yes
2	United Kingdom	0,73	Yes
3	Switzerland	0,70	Yes
4	Denmark	0,67	Yes
5	Germany	0,67	Yes
6	Netherlands	0,61	Yes
7	Canada	0,61	Yes
8	Portugal	0,60	Yes
9	France	0,58	Yes
10	Norway	0,57	No
11	Singapore	0,57	Yes
12	Sweden	0,57	No
13	Ireland	0,56	No
14	Belgium	0,54	Yes
15	Finland	0,53	No
16	Luxembourg	0,53	Yes
17	South Korea	0,46	No
18	Austria	0,44	No
19	Australia	0,43	No
20	Japan	0,40	No

4.4. Country Clustering

To assess the similarities between the analysed prospect markets, a Hierarchical Clustering was performed through the SPSS software. Such a procedure allows for the creation of somewhat homogeneous groups of countries, based on the studied variables. The cluster assessment, when combined with the rankings, allows for a richer country analysis. To grasp the best possible cluster formation, correlations between variables were assessed and sensitivities based on variables' weights were performed.

With the final intent of analysing correlations, a 72x72 Correlation Matrix was performed and the number of unique correlations was organized in *Appendix 18*, by its strength. The majority of correlations between variables (approximately 83%) presented a low strength of association. Still, variables that displayed Very High correlations were deemed redundant, as they convey the same type of behaviour. As such, these associations were further analysed with the finality of eliminating the variables with the highest number of associations, until Very High Correlations ceased to exist. The methodology followed is showcased in *Appendix 19* and resulted in the elimination of 7 variables, as shown in *Appendix 20*. It is worth noting that variables were not removed for the ranking analysis, given that this study revealed an overall robustness and low sensitivity to changes in the number of variables, as the elimination of an indicator implied an alteration in the others' relative weight. Ultimately, such alterations would raise the impact of correlated variables in the analysis, resulting in generally analogous results.

Having performed the data cleansing, the clustering analysis followed. Given that this assessment does not ponder the relative weight or importance of the selected variables, as considered in the ranking, three sets of clusters were developed. Overall, such an assort of investigations provides a rudimentary sensitivity test to the results, allowing for comparisons and the choice of the most accurate and insightful analysis.

The first country clustering (A) contemplated all 65 variables resulting from the cleansing. This process resulted in 27 separate country clusters *(Appendix 21)*. A second grouping (B) that regarded 48 more meaningful variables, deemed as Medium to Strong provided 24 clusters *(Appendix 22)*. Lastly, in pursuit of further insights, a third clustering (C) was developed, whereby only the variables considered to be as Medium-Strong and Strong *(Appendix 23)* were contemplated. These 21 variables are mostly industry-related and resulted in 22 clusters. Besides differing in the number of overall variables, each assessment awarded a different relative representativity to each studied dimension, as depicted in *(Appendix 24)*. Nevertheless, the three methodologies bestowed greater significance to industry-related variables, in comparison to each country-environment dimension.

Clustering assessments A and B provided a balanced analysis of relevant country-related conditions and industry factors. Their results showed numerous similarities, displaying Pimentel's main international markets (Portugal, France, the United Stated, China) in isolated clusters and its Western European presence grouped with Canada. Additionally, the company's seemingly more economically prosperous markets (Luxembourg, Switzerland, Denmark) displayed commonalities with Nordic countries and Ireland.

Clustering assessment C, on the other hand, was a more industry-specific approach, with 67% of the analysed variables being directly related to each country's wine market. Nevertheless, it provided an equally clear distinction amongst developed and developing economies, with Pimentel's main international presence being isolated. The resulting clusters were not fully analogous to the ones arising from sets A and B, but still displayed some similarities.

The developed assessments provide credible insights on the countries' commonalities, resulting in clusters whereby Pimentel's current international markets were accompanied by highly ranked prospect markets. Such results support the robustness of the studied variables and their role in characterizing the considered countries. Ultimately, set B was selected as the basis for further analysis, as it levelled external factors, crucial to be considered at an entry-level stage, with industry-specific metrics. This assessment was chosen over A, as the representativity of each dimension was more congruent with the weights assigned in the ranking analysis.

Indeed, B appears to be valuable in selecting countries to further assess, as it may concede some behavioural commonalities between current and prospect markets. For an in-depth comparison of B’s 24 resulting clusters, 6 broader cluster groupings were derived, based on the higher-level relations displayed in the dendrogram, with a rescaled distance of either 3 or 4 as the cut-off point, depending on the similarity between clusters. For further assessment, the average values for each dimension considered in clustering B was computed, given the standardised and inverted results of the assessed metrics *(Appendix 25)*.

Table 6: Group 1 PESTEL and Industry Average

	Political Average	**Economic Average**	**Social Average**	**Technological Average**	**Legal Average**	**Industry Average**
Overall Average	-0,091	-0,048	0,160	0,091	0,007	0,145
Group 1	**0,584**	**0,379**	**0,421**	**0,415**	**0,323**	**0,055**

Table 7: Group 1 Clusters

Cluster 1	Czech Republic	Slovakia	Poland	Bulgaria	Croatia	Estonia	Lithuania
	27	38	35	40	41	26	31
	Latvia	Malta	Hungary	Uruguay	Greece	Chile	
	30	24	28	46	52	44	
Cluster 2	Cyprus						
	21						
Cluster 3	Australia	New Zealand	Italy				
	19	23	42				
Cluster 4	Romania						
	32						
Cluster 5	Qatar	Oman	Singapore	United Arab Emirates			
	39	61	11	25			

The first group, constituted by Clusters 1 to 5, is characterized by favourable external country conditions, with sound political stability and societal settings. Yet, it displays unattractive wine markets, except for Cluster 4, constituted by only Romania. These are generally developed economies, being mostly Eastern European countries, in addition to Oceania and some Asian and South American markets, that displayed average to good ranking scores.

Table 8: Group 2 PESTEL and Industry Average

	Political Average	**Economic Average**	**Social Average**	**Technological Average**	**Legal Average**	**Industry Average**
Overall Average	-0,091	-0,048	0,160	0,091	0,007	0,145
Group 2	**0,818**	**0,368**	**0,726**	**1,193**	**0,417**	**0,312**

Table 9: Group 2 Clusters

Cluster 6	Netherlands	Belgium	Canada	United Kingdom	Germany		
	6	14	7	2	5		
Cluster 7	Austria	Slovenia	Luxembourg	Switzerland	Sweden	Denmark	Norway
	18	33	16	3	12	4	10
	Finland	Iceland	South Korea	Japan	Israel	Ireland	
	15	22	17	20	37	13	

Group two, on the other hand, allies pleasant industry factors to its strong political and technological situation, constituting an alluring prospect for Pimentel. Cluster 6, constituted of markets where Pimentel has registered either sound or sporadic sales, as in Germany and in the United Kingdom, and is characterised by importing countries that showcase a stronger presence and influence of Portuguese wines (surpassing Cluster 7 in Portuguese wine price and in Port wine sales) (IVV 2020). Nevertheless, Cluster 7 displays markets with an overall growing presence of both Portuguese and Port wine, as for South Korea and Luxembourg (IVV 2020).

Table 10: Group 3 PESTEL and Industry Average

	Political Average	**Economic Average**	**Social Average**	**Technological Average**	**Legal Average**	**Industry Average**
Overall Average	-0,091	-0,048	0,160	0,091	0,007	0,145
Group 3	**0,530**	**0,069**	**0,750**	**0,831**	**0,047**	**0,319**

Table 11: Group 3 Clusters

Cluster 8	France 9
Cluster 9	Spain 34
Cluster 10	Portugal 8

Group three includes Spain and Pimentel's largest markets, France and Portugal. Besides the geographical proximity, these markets display commonalities in domestic wine production and their exporting nature (Workman 2019, World Population Review 2020). The only market that Pimentel could explore within this cluster is Spain, as its presence in the country is limited, only registering punctual sales (representing 0.01% of 2017 to 2019 sales). However, besides not being as economically prosperous, Spain is not as attractive for Portuguese winemakers as France and other European destinations, displaying a per capita consumption of close to 6 times less than Portugal and France, in addition to ranking 27th in wine imports, against France's 12th place (Workman 2019, Nation Master 2019).

Table 12: Group 4 PESTEL and Industry Average

	Political Average	Economic Average	Social Average	Technological Average	Legal Average	Industry Average
Overall Average	-0,091	-0,048	0,160	0,091	0,007	0,145
Group 4	**-0,329**	**0,147**	**0,605**	**0,687**	**0,298**	**0,899**

Table 13: Group 4 Clusters

Cluster 11	United States 1
Cluster 12	China 36
Cluster 13	Brazil 29

Group four is constituted of so-called economic powerhouses (the US, China and Brazil). These countries vary in development levels and external environment, given their differences of political regime as well as social and technological advancement, displaying differing, but nevertheless largely positive industry conditions. Despite such dissimilarities, this group represents Pimentel's third to fifth largest markets in 2017 to 2019 average sales.

Table 14: Group 5 PESTEL and Industry Average

	Political Average	Economic Average	Social Average	Technological Average	Legal Average	Industry Average
Overall Average	**-0,091**	**-0,048**	**0,160**	**0,091**	**0,007**	**0,145**
Group 5	**-0,291**	**-0,016**	**-0,195**	**-0,338**	**0,267**	**0,004**

Table 15: Group 5 Clusters

Cluster 14	Macedonia	Albania	Serbia	Armenia	
	57	64	48	65	
	Bosnia and Herzegovina	Montenegro	Georgia	Moldova	
	66	59	43	55	
Cluster 15	Mongolia	Uzbekistan	Kazakhstan	Azerbaijan	Belarus
	67	80	63	68	72
Cluster 16	Peru				
	50				
Cluster 17	Russia	Mexico	Ukraine	Colombia	
	49	54	62	47	
Cluster 18	Vietnam	Indonesia	Jordan	Turkey	Malaysia
	56	58	70	73	45

Group five includes countries with low to average ranked countries, encompassing Clusters 14 to 18. Despite their geographical dispersion across Asia, Eastern Europe and America, these nations are characterized by a poor external environment, despite their above-average legal and economic conditions, as well as low industry attractiveness.

Table 16: Group 6 PESTEL and Industry Average

	Political Average	Economic Average	Social Average	Technological Average	Legal Average	Industry Average
Overall Average	-0,091	-0,048	0,160	0,091	0,007	0,145
Group 6	**-0,981**	**-0,725**	**-0,467**	**-0,856**	**-0,773**	**-0,184**

Table 17: Group 6 Clusters

Cluster 19	Thailand	Costa Rica	Jamaica	Panama	India	
	51	60	75	53	79	
	The Bahamas	Belize	Maldives	Lebanon	Cuba	
	69	91	82	95	96	
Cluster 20	Egypt	Tajikistan	Laos	Myanmar	Bangladesh	
	90	99	78	98	100	
	Pakistan	Cambodia	Nepal	Kyrgyzstan	Bhutan	
	101	83	92	89	87	
Cluster 21	Philippines	Sri Lanka	Dominican Republic	Bolivia	Ecuador	Paraguay
	77	85	76	94	81	74
	El Salvador	Honduras	Guatemala	Nicaragua	Haiti	
	71	86	84	97	102	
Cluster 22	Argentina					
	88					
Cluster 23	Iran					
	93					
Cluster 24	Venezuela					
	103					

Lastly, group six considers countries that are positioned poorly in the ranking analysis, given their unfavourable external conditions and low industry attractiveness. Indeed, these clusters encompass underdeveloped countries with notable instability, risk and disparities, that do not provide an appropriate business environment for Pimentel.

4.5. Potential Markets Selection

The combination of both the ranking and clustering analysis supports the reasoning of the countries to be further analysed, which are the UK, Germany, Ireland and South Korea.

As previously inferred, Group 2, which aggregates Clusters 6 and 7, is the one presenting the most attractive markets in terms of wine industry characteristics as well as macroeconomic factors. In fact, Cluster 6 comprises countries in which Pimentel is already present. Nevertheless, and upon consultation with Pimentel, UK and Germany (specifically) presented punctual sales compared to the market potential they represent. The UK and Germany are inserted in the world's top three wine importing countries, indicating their suitability for Pimentel's expansion, with wine strongly demanded and appreciated. Furthermore, they are valuable markets for Portuguese exports, with Port and Douro wine sales being superior to those attained in similar countries. Thus, the few spot sales of Pimentel in these countries, provoke an interest in deriving a further expansion strategy and sustained presence in these highly regarded and mature markets, that ranked 2^{nd} and 5^{th}.

As for Cluster 7, it entails countries in which Pimentel already had sales, together with prospects markets, with nine out of thirteen countries ranking on the top twenty. Switzerland and Denmark are the leading countries, yet Pimentel already explores them. The following best ranked countries are Norway and Sweden in which penetrating is extremely difficult, as Nordic countries display a government monopoly on the sale of alcohol, grounded by tender procedures to ensure low levels of alcohol consumption per capita (CBI Ministry of Foreign Affairs 2016). To become partners of the wine monopoly, companies must intake the annual tender process and win against several other winemakers. Indeed, Pimentel has attempted such a feat, yet failed to win the selection. The monopoly for Sweden is Systembolaget (Wine Lancer 2018) and for Norway is Vinmonopolet (Wine Lancer 2018).

Ireland, which ranked 13^{th}, is thus one of the countries chosen to be further analysed. This nation presents strong macro environment parameters, aligned with being a strong wine importer. Finland which ranked 15^{th} is also subject to an alcohol beverage monopoly, Alko (Concealed Wines 2020), and as such, was excluded from further analysis as well as Luxembourg, which ranked 16^{th}, where Pimentel is already in. Thus, the last country chosen to perform an in-depth analysis was South Korea which ranked 17^{th}. This country is one of the strongest Asian potencies, which has risen to become one of the world's most attractive wine markets with good projections of Portuguese wine imports (Wine Australia 2020). Such choice is congruent with Pimentel's growing focus and interest in Asian markets.

5. *Potential Markets In-depth Analysis*

To select the most suitable markets for Pimentel to pursue, countries were assessed by their macro conditions followed by a detailed industry analysis. The latter included the most relevant competitors, channels used and consumer patterns. To comprehend the requirements Pimentel must fulfil in penetrating these markets, general and wine-specific entry conditions were considered, as well as the incidence of the Portuguese wine sector in each country.

5.1 United Kingdom

I. Country Overview

The UK encompasses England, Scotland, Wales and Northern Ireland (Government of the Netherlands 2020), being a parliamentary democracy under a constitutional monarchy (David 2019, Great British Mag 2020). While Scotland, Wales and Northern Ireland are independent countries, they are all eventually subject to English law (Great British Mag 2020). The judicial system is historically based on precedent, with common law at the foreground of decision making (Britannica 2020). While the UK is overall a politically and legally stable country and a permanent member of the United Nations, Brexit brought political uncertainty, especially for the flow of people and goods (The Global City 2020, United Nations 2020). The UK is the 6th largest economy in the world, with a GDP per capita of €41 thousand. Likewise, it is an appealing country for doing business (ranking 9th worldwide) and a popular destination for Foreign Direct Investment (FDI) for several industries (David 2019). The UK is also a hub for technological development, supported by high-quality infrastructure, information, and communication technology, ranking in the world's top 15 in all indexes that serve as indicators for such variables (David 2019). The country accounted for 67.8 million people in 2020 (World

Population Review 2020), performing strongly on Human Development (United Nations Development Programme 2020) and Social Progress indexes (Social Progress 2020).

II. Wine Industry Overview

The UK wine market accounted for €19 815 million in revenues in 2019, mostly from still wine, corresponding to 85% of the value, with sparkling wine amounting to 13.4% and fortified wine to 1.6% (Statista 2020). With a per capita consumption of 3.9L, the UK is among the world's largest importers, registering approximately €3 800 million wine imports in 2019 (Workman 2019), coming mainly from France, Italy, New Zealand, Australia, Spain (Statista 2020).

While it has historically relied on global markets for wine, the domestic production has been growing, with exports rising 24.3% since 2015, reaching a value of approximately €716 million in 2019. The markets the UK mainly exports to are Norway (20%), the US (17%) and Canada (17%) (Workman 2019). The UK has seven regional vineyard associations, with a total of 770 vineyards and 165 wineries, such that the most planted varietals are pinot noir (33%) and chardonnay (32%), with production being mostly of sparkling wine (72%) (Robinson 2020).

III. Competition

The British wine market is highly fragmented and competitive in terms of players, with each having a reduced volume share. In 2019, the top four producers in volume terms were US multinational Constellation Brands (11.2%), the Australian company Treasury Wine Estates Vintners (5.2%), US-based Blossom Hill Winery (3.6%) and the Chilean producer Viña Concha Y Toro (3.5%). The top 3 players display a strong position on the still wine segment, accounting for 12.5%, 5.9% and 4.0% of the volume share, respectively (MarketLine 2020).

IV. Channels

The UK wine market is mostly served by off-trade channels. Indeed, in 2019, the on-trade sector represented 18.4% of the wine sales volume in the UK, while the remaining 81.6% of the market volume corresponded to off-premise sales. Specifically, hypermarkets and supermarkets were the leading distribution channel, accounting for a share of 58.6%, food and drink specialist stores represented 7.6% of sales, online retail amounted to 6.1% of sales, and the remaining 9.2% were attributed to other vendors (MarketLine 2020).

On-premise sellers mostly on regional wholesalers that use as intermediary an importer or Cash and Carry players, that directly contact the producer. The off-trade channels, on the other hand, may rely importers that directly contact with representative agents of the foreign wine exporters, mitigating risk for the involved parties (CBI Ministry of Foreign Affairs 2016).

Although supermarkets and hypermarkets dominate the UK wine industry, these players have been facing increasing competition amongst them, creating pressure for either pricing or differentiation strategies. For instance, the Waitrose chain focuses on premium labels while major retailers, such as Tesco, ASDA, Sainsbury's and Morrison's compete on prices. Indeed, to maintain their dominant positions, retail chains have been making large efforts to run promotions and even developing their own private wine labels.

Nevertheless, independent wine merchants that use the same channel strategy as supermarkets are also becoming popular, namely Majestic, Bargain Booze and Oddbins. Despite having fewer sales volume, these players rely on differentiation strategies, building closer consumer relationships (London Wine Competition 2019, Institute of Alcohol Studies 2018).

Similarly, so-called corner shops such as SPAR, Londis and other independent retailers, are important off-trade vendors (Institute of Alcohol Studies 2018). Often, these retailers also rely on multi-channel sales by developing an online presence. Nevertheless, small importers of premium wines that do not possess any physical premises also sell via e-commerce as consumers reveal a willingness to pay more for premium wines that cannot be commonly found in physical stores (CBI Ministry of Foreign Affairs 2016).

V. Consumer trends

Wine is the preferred alcoholic beverage in the UK, with 60% of adults being estimated to drink it (Accolade Wines 2018). Of the British wine consumers, 43% drink wine at least once per week, while 13% drink 2 to 3 times per month (Statista 2017). Such consumption favours foreign brands, as a consequence of the country's climate and culture.

Throughout time, the British have been advocating for moderation and prizing quality over quantity, revealing a higher willingness to pay for an occasional, superior wine (World Population Review 2020). Such preference is propelled by health and image concerns and further encouraged by retailers' effort on promoting high-quality wines.

Furthermore, and as mentioned, still wines are the preferred variety, followed by sparkling and fortified wines. As for the first, while white wines are generally favoured, red wines are a popular choice amongst higher-end, knowledgeable consumers, and many drinkers have also shown a budding interest in rosé (MarketLine 2020, Accolade Wines 2018).

VI. Entry Conditions

Before Brexit, regulations on exporting wine to the UK were under the practises allowed under the European Commission's wine regulations, enforced by the Food Standards Agency through the Wine Standards Branch (NIBusinessInfo 2018, Food Standards Agency 2019). However, due to Brexit, wines coming from the EU became subject to the same import classification requirements as wines coming from Third Countries, requiring a VI-1 certificate released in the country of export, whereby the product is fully explained. Still, as per the transition period, such a certificate is not mandatory in the months of January and June 2021 (GOV.UK 2020).

As for agents, AICEP London is the main force for advising and supporting Portuguese companies' internationalization in the UK (AICEP 2020). Regarding taxation, apart from 20% VAT, UK consumers pay an "alcohol duty" tax on all alcoholic beverages. For wine, this duty depends on the Alcohol by Volume (ABV), starting at approximately €1.03, for still wines with 1.2% to 4% ABV and going up to €4.43, to wines ranging between 15% to 22% ABV. For sparkling wine, it ranges between €3.25. for 5.5% to 8.8% ABV and €4.31, for 8.5% to 15% ABV, as per *Appendix 26* (GOV.UK 2020).

VII. Portuguese wine presence in the market

The UK represents the 5th largest market in value for Portuguese wine exports, with a registered value of 216 million litters in 2019, with a decrease of 0.28% when compared to 2018 (IVV 2020). Specifically, the UK is the 3rd largest market for Port Wine, registering sales of €45.6 million in 2019, being only surpassed by Portugal itself and France. Such value displays a growth of 9% in comparison to 2018. Additionally, it is the 7th largest market for Douro, with sales of €4.6 million, despite their value decreasing 40% from 2018 to 2019 (IVDP 2020).

5.2 Germany

I. Country Overview

Germany is a federal republic, with sixteen federal states that contribute to governmental decision making (Bundesrat 2020). The country is characterized by an overall effective political and legal environment, reporting low corruption levels and great stability (World Governance Indicators 2020). Furthermore, Germany ranks amongst the top ten EU economies, with a GDP per capita of almost €48 thousand (The World Bank 2019). The country offers a favourable business environment, being 22nd on the Ease of Doing Business Index (The World Bank 2020), displaying strong competitiveness (World Economic Forum 2019), low investment risks, as well as high infrastructure quality (Statista 2020) and logistics performance (ITU 2020).

Additionally, Germany is the most populated country in the EU, with over 80 million inhabitants (World Population Review 2020), showcasing high levels of Human development (United Nations Development Programme 2020) and Social progress. (Social Progress 2020).

II. Wine Industry Overview

Germany's wine revenues amounted to about €14 732 million in 2019, with 81.7% deriving from still wines, 16.5% from sparkling wine and 1.8% from fortified wine (Statista 2020). While the country is known for its high beer consumption, it represents an attractive market with a strong culture of wine, dating back to the Roman times, such that the per capita wine consumption is of 3.29L is the 20th highest in the world (NationMaster 2019).

As for imports, these reached a value of €2 436 million in 2019, being Italy, France, and Spain, the top destinations in value (CBI Ministry of Foreign Affairs 2016). Still, Germany displays high levels of domestic production (Dressler 2018, Italian Wine Central 2020), being the world's 8th largest wine exporter, amounting to €980 million euros in 2019 (Workman 2019, Statista 2018). Exports are mainly directed to the US, Netherlands and the UK (Statista 2018).

Despite that, the country does not enjoy a large vineyard area, such that its high production mirrors a strong level of productivity. Specifically, the country holds a total of 45 000 national winegrowers and approximately 11 000 registered wineries (Dressler 2018).

Production is divided into four types of players: independent branded wineries, winegrowers that do not sell wine directly to consumers, cooperatives, and wine cellars, which have no production of wine but purchase from winegrowers and sell under their brands (Dressler 2018). Independent wineries have limited capacity, and tend to mostly serve the national market, whereas wine cellars enjoy a larger producing capacity, serving both the national and international market. Furthermore, Germany mainly produces white wine (66.9%), with the main grape varieties being Riesling, Müller Thurgau and Pinot Noir (Karlsson 2018).

III. Competition

The German wine market is rather fragmented, displaying a highly competitive landscape. Indeed, in 2019, the top four players possessed 17.1% of the market share volume. The leading

German player, Rotkäppchen-Mumm Sektkellereien, accounted for 8.2% being expected to keep such leadership due to its strong presence on the still and sparkling segments. Additionally, French multinational Les Grands Chais de France holds 4.1% of the market's volume, followed by F.W. Langguth Erben Gmbh, with 2.6% (MarketLine 2020).

Moreover, there is a preference for national brands, particularly in the South, where the strong domestic wine culture and consumer loyalty dominate, compromising new entrants' success (CBI Ministry of Foreign Affairs 2016). Contrarily, northern consumers are more accessible to international brands, making competition from national players being less intense. Still, with consumers being highly price sensitive, international players face high rivalry from other international players, such as Italian, French and Spanish winemakers (Pilz 2017).

IV. Channels

In Germany, the wine market is highly served by off-trade channels. In fact, on-premise vendors represented 13.1% of the sales volume in 2019, while off-trade sales amounted to the remaining 86.9% of the market share. Specifically, hypermarkets and supermarkets are the main servers of the market, with 56.1% of the sales volume, while food and drink specialist channels accounted for 25.4%, convenience stores amounted 2.2% of the sales volume, and the remaining 3.1% were attributed to other sellers (MarketLine 2020).

On-trade facilities are mostly reliant on Cash & Carry players or importers that represent the foreign producer, whereas depending on their size, off-trade players may establish relationships with representative agents of the producers, interact with importers, or even directly engage in contracts with the foreign winemakers (CBI Ministry of Foreign Affairs 2016). Indeed, only a few large importers, such as Hawesko, Schenk, Mack and Schuhle, Owen Teck and Tophi, distribute to the top supermarkets, hypermarkets and discounters, providing them with large bargaining power (CBI Ministry of Foreign Affairs 2016). Smaller, regional distributors present a more accessible channel, despite less profitable, as they cater to smaller retail chains.

Given the dominance discounters and supermarkets have over the market share, high-volume players such as Aldi, Lidl and Rewe Group (Ranking the Brands 2012), import wine in bulk and display high listing fees (CBI Ministry of Foreign Affairs 2016). Their average prices tend to be low, with each bottle costing approximately 5.85€ a bottle, against the average price in Portugal, of 6.76€ (CBI Ministry of Foreign Affairs 2016, World Health Organization 2016). Specialized stores, on the other hand, focus on a more premium portfolio, thus selling higher quality products, engaging in higher marketing investments and displaying greater e-commerce presences. When entering the market, a prosperous introduction among regional specialised players, allows to scale up towards larger retail chains (CBI Ministry of Foreign Affairs 2016).

V. Consumer trends

While beer represents 80% of alcoholic beverage consumption in Germany, wine's perception has become favourable (Dressler 2018), due to a suitable macroenvironment, an increase in purchasing power and a growth in health awareness (MarketLine 2020).

The preferred wine type is still wine, followed by sparkling wine and the fortified one. Within the still wine category, there is a clear preference towards red and white wines, with a share of 47% and 43%, respectively, such that only 10% of consumers prefer rosé.

Furthermore, among wine drinkers, the majority consumes wine at least 2 to 3 times per month, with 16% drinking at least once a week (Dressler 2018). Despite Germany being a wine-producing country, domestic production does not satisfy demand, such that most of the consumed wines are from foreign brands. Nevertheless, as already mentioned, market entrants must consider consumers' large price sensitivity, with the practiced levels being usually lower than the values registered in other countries. Likewise, regional demand must be accounted for, as despite displaying a lower wine consumption, non-producing areas such as the Northern region prefer international brands, constituting a better entry market (Dressler 2018).

VI. Entry Conditions

Germany's import standards are aligned with the Common Agriculture Policy (CAP) of the European Union, which specify winemaking practices, wine classification and labelling requirements (European Commission 2020). Thus, companies that already operate in the European markets do not need to make specific adaptations when entering the market. Nevertheless, Portuguese entrants may seek support from agents such as AICEP Berlin, specifically in attaining market information and counselling (AICEP 2020).

As for taxes, wines face a 19% VAT rate (European Commission 2020), with sparkling wines being subject to an added excise tax of €1.36 per litre (CBI Ministry of Foreign Affairs 2016).

VII. Portuguese wine presence in the market

Germany is the 3rd largest international market for Portuguese wine, importing 234 million litres in 2019, being only surpassed by France and Angola. Despite that, Portuguese wine consumption decreased by 8.80% when compared to 2018. Still, Port wines achieved a sales value of €13 million in 2019, with consumption growing 7% in the same period. Similarly, Douro wine sales grew 10% from 2018 to 2019, with a sales value of €5 million (IVV 2020).

5.3 Ireland

I. Country Overview

The Republic of Ireland is a parliamentary democracy, divided into 26 counties (Wesley Johnston 2020). The country is characterized by its political stability and government effectiveness, showcasing low corruption and great strength of legal rights (David 2020, BBC 2020, The World Bank 2019). Economically, it registers a GDP per capita of €74.7 thousand

(The World Bank 2019), showing significant growth over the years, and is forecasted to grow at an average of 3.6% until 2025 (International Monetary Fund 2020). The Irish business environment ranks 24th worldwide, with the country showcasing a low corporate tax rate and governmental measures that allow for financial freedom, which largely benefit multinationals. From a social perspective, the country has approximately five million inhabitants (World Population Review 2020), displaying high levels of Human Development (United Nations Development Programme 2020) and Social Progress (Social Progress 2020).

II. Wine Industry Overview

The overall picture of the macro-level performance mirrors a stable wine industry in Ireland. In 2019, revenues were approximately €2 299 million, coming mostly from still wine (89,2%), with 8.7% arising from sparkling wine and 2.1% from fortified wine (Statista 2020). Furthermore, sales are expected to grow by 8.2% annually until 2025 (Statista 2020). Ireland shows a relatively high per capita wine consumption of 3.34L, being the world's 21st largest wine importer, with a value of €276 million in 2019. Most imports come from Chile, Australia, the US, France and Spain (Workman 2019, McDade 2019). Wine exports, on the other hand, only amounted to €17 million in 2019, with the main destinations being the UK, Netherlands and Denmark (Workman 2019, OEC 2018). In the same year, wine sales grew 1.42%, reflecting an increase in the share of wine consumption among all alcoholic beverages (McDade 2019).

III. Competition

The Irish wine market is extremely fragmented, with many players being present. Indeed, information on each brands' competitiveness is limited. As per the latest available figures from 2013, the four leading players were Treasury Wine Estates, accounting for 13.6% of market volume, followed by Pernod Ricard with 7.2%, Sociedad Anonima Vina Santa Rita with 5.8% and E. & J Gallo Winery which amounted for 3.6% of total volume share (MarketLine 2014).

IV. Channels

Irish wine consumers are mostly served through off-trade channels. According to MarketLine's latest available figures for the Irish wine industry, on-trade channels accounted for 10.8% of the sales volume, while off-premise sales represented the remaining 89.2%. Concretely, specialist retailers were the main sales channel, accounting for 40.4%, while supermarkets and hypermarkets represented 40.1% of sales volume, convenience stores accounted for 5.7% of the market share, and the remaining 3% were attributed to other vendors (MarketLine 2014).

Recent studies show that in 2019 approximately 83% of final consumers' transactions were made via off-trade channels, with on-premise sales representing 17% (McDade 2019).

Despite only 1100 people being directly employed by wine importers, both on-trade establishments, such as restaurants and pubs, as well retailers and other off-premise vendors can rely on such companies to supply foreign products (Drinks Ireland Wine 2013). From these, Bubble Brothers and A Taste of Italy, which imports mainly Italian wines, stand out. Both players have been making efforts to import medium to high quality wines and ensure distribution to wholesalers (London Wine Competition 2017, Beverage Trade Network 2020).

The biggest retail players are Findlater Wine & Spirit Group, which have been offering the Californian wine Blossom Hill, as well as C&C Gleeson, which experienced share growth with the Chilean wine Santa Rita. However, in 2019, competing retailers as Aldi and Lidl have shown continuous growth due to their appealing price-quality relation (Euromonitor 2020).

V. Consumer trends

Alcohol consumption in Ireland has been decreasing, registering a 25% decrease from 2005 to 2017 (Alcohol Beverage Federation of Ireland 2017). At the same time, the prices practiced are the largest in Europe. Indeed, studies support that Irish consumers have been preferring quality over quantity, as a consequence of the high prices and high taxation among all alcoholic beverages (McDade 2019). Wine corresponds to the second largest beverage in 2019 alcohol consumption market, with beer being the favourite beverage (Drinks Industry Ireland 2020).

Consumers have continuously preferred international over national wines, due to their larger variety. Similar to other countries, still wines are preferred and within this category, although losing share, white wine is still the favourite among Irish consumers (48%) in 2019, followed by red wine (46%) (Wall 2020). Despite its small percentage in consumption, a growing demand for rosé wine (6%) was verified in 2019 (McDade 2019). Furthermore, sparkling wine has been facing rising interest, mostly driven by Prosecco (Wine Intelligence 2019).

VI. Entry Conditions

Irish wine production and trade follows the Common Agriculture Policy of the EU (Department of Agriculture, Food and the Marine 2020). Thus, the conditions required for companies already exporting to EU countries are the same as the procedures followed in the other Member States.

Still, Portuguese companies may seek counselling on local market conditions by contacting AICEP Dublin (Expresso 2019), which has even held webinars on the market (AICEP 2020).

As for taxation, unlike most EU countries, Ireland imposes an excise tax on all alcoholic beverages. For each standard bottle of wine, consumers pay €3.19 in excise, plus 23% of VAT at the point of purchase, for each bottle of sparkling wine, the excise tax is €6.37, in addition to the 23% VAT, making these rates the highest in the EU (Foley 2019).

VII. Portuguese wine presence in the market

Contrary to Chilean or Australian wines, Portuguese wines have been losing popularity in Ireland. In fact, in 2019, Ireland imported around 8,93 million litres of Portuguese brands, verifying a 17.09% decrease in comparison to 2018 (IVV 2020). Port sales were €1.5 million in 2019, 2% less to 2018, while Douro wines €210 thousand, signifying a 3% fall (IVDP 2020).

5.4 South Korea

I. Country Overview

South Korea is a democratic republic, divided into nine provinces with their own legislative council (Britannica 2020). Despite experiencing political turbulences and regime shifts after the end of the peninsular war in 1960, the country displays political stability and low corruption, although it performs poorly in terms of strength of legal rights (The World Bank 2019, World Governance Indicators 2020). The Republic of Korea is the fourth-largest economy in Asia, with a GDP per capita of €36 thousand (The World Bank 2019). Additionally, it is an attractive business destination, ranking 5th worldwide in ease of doing business, equalling the US in the score and being characterized by strong competitiveness (The World Bank 2019). Moreover, it is perceived as a hub for technological development, ranking 2nd worldwide in the Information Communication and Technology index and sixth in Infrastructure Quality (Global Tenders 2020). The country accounts for 51 million inhabitants (World Population Review 2020), with only approximately 12.66% of its population aged below fifteen and ranks in the top 25 of the Social Progress Index (Social Progress 2020).

II. Wine Industry Overview

The South Korean wine market registered approximately €1.4 million in revenues in 2019, with 91.9% correspond to still wines, 6.5% to sparkling and 1.6% to fortified wines (Statista 2020). While the per capita consumption has been growing at a 4% compound annual growth rate, the value of 0.18 litres is rather low (Nation Master 2019). Nonetheless, South Korea is the 24th largest wine importer in the world (worth €219 million in 2019), with imports' value growing 6% from 2018 to 2019 (Workman 2019). The largest international supplier in this market in terms of value is France, with a share of 30%, followed by Chile and Italy (AICEP 2016).

The country's wine exports value corresponds to only 0.16% of its imports, with grape wine consumption being mainly satisfied by foreign wines, as national production is residual and less competitive in quality and price. Domestic production is mostly of non-grape varieties, such as Makkeoli and TakjuIn, with approximately 93.4% of the country's wine consumption being of non-grape type (Wine Australia 2020, European Commission 2019). In 2019, Korean wine exports were only worth €354 thousand (Workman 2019), mainly going to the US (29.56%), South Africa (23.39%) and Thailand (18.85%) (ITC 2019).

South Korea displays a single large corporate-type winery, besides 42 small-sized ones, that are subject to high costs of land and labour and unfavourable weather conditions (European Commission 2019). Overall, the country's circumstances are appealing for foreign producers, such that it was deemed the world's second most attractive wine market (Wine Australia 2020).

III. Competition

The South Korean market is concentrated and competitive, with the four leading players possessing approximately 56.7% of the 2018 market share. These players are Angel's Heart, with 14.7% of the sales volume, German multinational Franz Wilhelm Langguth Erben, with14.6%, the Korean Keumyang International, with 14.4%, and Duegradinvwines, with 13%. The still wine category is the strongest for Angel's Heart and Franz Wilhelm Langgurth Erben, with each accounting for 17.3% of volume share, in 2018, whereby the South Korea multinational Keumyang International has a 14,4% of the volume share (MarketLine 2020).

IV. Channels

Korean wine consumers are mostly served through off-trade channels. In 2019, on-trade sales amounted to 29.2%, such that off-premise sales represented 70.8% of the market volume. Specifically, with hypermarkets and supermarkets accounted for 56.3% of sales, food and drink specialist stores represented 10.0% of the market share, convenience stores amounted to 2.2% of sales, and the remaining 2.3% were attributed to other vendors (MarketLine 2020).

On-trade and off-trade vendors usually attain foreign wines through authorized distributors, that establish relations with either importers or representative agents of the producers. Indeed, while in the beginning of the millennium, small enterprises would directly trade with European producers, with the subsequent growth of the wine market, business conglomerates, referred to as “chaebol”, began developing their own importing companies, leveraging their established retail chains. By creating direct relationships with foreign winemakers, these large players can thus sell wines at lower prices. Despite retailers’ push for lower prices, producers may leverage their products’ origin, grape type and overall uniqueness to attain a larger bargaining power. Some of the largest distributors in South Korea are Dongwon Wineplus, Kaja & Wine, Keumyang International, Nara Cellar and Shindong Wine, which largely serve the off-trade sector, with some also supplying on-premise vendors, such as hotels, bars and restaurants. The largest off-trade retailers include E-mart, Costco, Homeplus and Lotte, with some also providing large online purchase points (AICEP 2016).

Although almost all consumers buy in the off-trade, on-trade channels are still popular, especially in Seoul, where high-end Michelin star restaurants, fresh Korean cuisine restaurants, specialized wine bars, nightclubs and bars have boosted the demand for wine products (European Commission 2019, Wine Intelligence 2016). Nevertheless, off-trade channels represent the main sales vehicle (Briceag 2017).

V. Consumer trends

Beer is South Koreans’ preferred beverage, in terms of volume, wine is gaining notoriety (Statista 2020). As already mentioned, the country is a major producer of non-grape wine, such that consumers only recently became familiarized with grape wines. Yet, due to their higher prices, imported grape wines are still perceived as a prestige symbol (European Commission 2019). The preferred wine type is red, with 65%, with white wine representing only 9% of the wine industry (AICEP 2016). This skewness in preferences towards red wine derives from the increase in the publicity of this product's health benefits, the expansion of the upper-income segment and the westernization of Korean eating traditions (European Commission 2019).

Besides health benefits, wine consumption in South Korea is also impacted by price, design and labelling, brand reputation and origin, with European wines having a quality perception. There has been an important growth in fortified wine consumption, with the total segment displaying an expected CAGR of 6% from 2019 to 2023 (Cellar Asia 2020, Oh and Olson 2019).

In general terms, consumers show a growing interest in premium products, despite less expensive, glass-served wine also being popular among younger consumers. Additionally, there is a growing trend for purchasing of wines in box sets at stores, as it is a commonly gifted product in the country (European Commission 2019).

VI. Entry Conditions

When exporting to South Korea, only licensed companies are allowed to enter the market. Thus, wine producers must register at the Korean Ministry of Food and Drug Safety and their products must satisfy the conditions of the Special Act on Imported Food Safety Management (European Commission 2019). The customs procedures include standard requirements to be fulfilled, as detailed in *Appendix 27*. Wines must comply with national labelling rules *(Appendix 28)*, required in the country's home language (Oh and Olson 2019, European Commission 2019).

When entering this market, Portuguese companies may obtain advice from AICEP Seoul, which provides insights related to internationalization and exporting (AICEP 2016).

As for taxation, South Korea applies two different taxes for all alcoholic beverages: the liquor tax as an excise, and the education tax as a surtax. Specifically, the liquor tax is 30% of the price of the fruit wine and the education tax is 10% upon the previous tax amount. For international wines, these taxes are applicable to the importer. Evidently, taxes naturally increase final consumers' prices, who are further subject to a 10% VAT. Additionally, a cost of 7% to 8% of the CIF value (Cost, Insurance and Freight) is applied due to customs clearance fees. Under Free Trade Agreements with the EU, the US, and Australia, duties on imports of wine have been liberalized and the tax structure on consumption is the same for the products of these regions, as described above (European Union External Action 2015, Oh and Olson 2019).

VII. Portuguese wine presence in the market

In 2019, South Korea imported approximately 2.89 million litres of Portuguese wine brands, experiencing a 20.30% increase in comparison to the previous year (IVV 2020). In the same year, Port wine sales amounted €896 thousand, representing a significant increase of 64% in comparison to 2019. On the other hand, Douro wine registered a value of €61 thousand in sales, representing a 6% decrease in consumption when compared to 2018 (IVDP 2020).

6. Selected Markets for Internationalization

Pimentel realized wine revenues of around €5.1 million in 2019, registering an increase of 25% concerning the previous period. Nevertheless, the increase in sales revenues arose from the domestic market rather than the foreign one, with revenues collected from the latter remaining stable. As such, there is a need for further investment and focus on the internationalization potential. The in-depth analysis of the UK, Germany, Ireland, Australia and South Korea highlighted crucial aspects for the decision of the markets to develop business models.

The UK is one of the biggest markets for wine imports with an extremely fragmented competition in both its on and off-trade channels. Wine is the favourite alcoholic beverage in this market, with consumers increasingly demanding quality over quantity. Considering its potential for foreign presence, it represents the 5th largest market in value for Portuguese wines.

Thus, with Pimentel only having residual sales in this market, the company is currently using resources to extend its network of contacts to further tackle the UK's potential.

Germany is also one of the largest markets for the wine industry, being the 3rd largest worldwide importer, as reflected in its highly competitive market for both national and international brands. While there is a preference for domestic products, these alone cannot satisfy national demand, which constitutes an opportunity for foreign players. Contrary to the UK, German consumers prefer price over brand reputation when choosing their products. Still, Germany constitutes the 3rd largest wine market in value for Portuguese wines, even though they are priced at a low level. Thus, as Pimentel obtains only punctual revenues from this market, it constitutes a country in which the company should try to augment its presence.

As for Ireland, it is a high importer relative to its small dimension and population size, with wine sales expected to continue to grow in the next years. Due to the high taxation of alcoholic products, consumers register a trend of pursuing quality over quantity. As such, the demand for variety places an opportunity for foreign brands to tap in the market. However, Portuguese wine is losing its popularity in Ireland, with imports decreasing by around 8 million litres in 2019. This country represents a prospect for Pimentel, as the company has not established any contact within this market nor collected any type of revenue.

Finally, South Korea presents an interesting market, despite having a low value of imports considering its size and population. The country is estimated to be the second most attractive wine market worldwide, mostly as a result of its early industry stage and the notoriety this beverage is receiving, accompanied by the westernization of its culture. Additionally, Portuguese wine is increasing its popularity, registering an increase of 20.30% in wine export volume from 2018 to 2019. Thus, South Korea represents a blossoming market for the wine industry and Pimentel has not yet established any networking relationship with the country.

Considering the opportunities these countries present for developing internationalization strategies, for this project, the countries chosen to create a business model were Germany and South Korea. The reasoning lies in either the size or trends observed in the countries. On one hand, Germany is an extremely attractive country in terms of wine market size, and Pimentel has not fully realized the potential of this market in terms of revenues. On the other hand, South Korea is a market in which penetrating in its early stage of development can create immense advantages for Pimentel. As for the excluded countries, although Ireland represents a prospect market for Pimentel, Portuguese wine is declining in popularity, whereas the UK was excluded from consideration because Pimentel is currently directing resources to tackle this market.

7. Final Discussion and Conclusions

Pimentel's administration change and shift away from a family-based organization enabled operational, financial and human resources improvements. By exploiting its estate and core strengths, the company's visibility and reputation rose, allowing for a greater presence in not only the domestic market, but also in foreign ones. While the new management placed a greater focus on internationalization, the strategic approach is usually a reactive and low-involvement one, that relies on partners' efforts once the market has been penetrated. Indeed, Pimentel does not display the conviction for high involvement methods, like equity participations. While a mindset change would be highly beneficial in capturing growth opportunities, the suggested method of Direct Exporting Free On-Board is consistent with the current strategy, that mitigates financial risk but implies low control over foreign operations.

The usual entry method has thus not allowed to capture the markets' potential, such that Pimentel is recommended to adopt a more proactive attitude towards foreign expansion, by planning a strategy that considers the intended channel and regional coverage in a defined timeframe. Such commitment and goal definition are crucial in obtaining suitable partners and nurturing learning relationships that promote market knowledge and strategy adjustments.

While typically marketing efforts are transferred to foreign partners, Pimentel should strive to control its own branding and promotion activities. Hence, a general market position must be defined, so that it holds a consistent image among consumers and industry players. The suggestion for the company is to build its own marketing department and to study consumers' preferences to respond with personalized initiatives in each destination. Partners' alignment and cooperation are particularly meaningful for in-store campaigns and physical settings, but Pimentel should nevertheless ensure that it builds a relevant presence in the channels that it can control remotely, with digital media playing a major role.

In addition to a transparent definition of partners' role, financial success in foreign markets requires setting objective goals related to sales, balanced with the management of internal production and capacity efficiency. Therefore, Pimentel should discuss commercial milestones with partners and incorporate them in its daily operations.

The development of the expansion projects to Germany and South Korea were aligned with such understandings, providing favourable financial results, which accounted for concrete sales objectives aligned with Pimentel's results in other foreign markets. Such projections are contingent on the partners' commitment and ability to act on the established targets, as well as Pimentel's willingness to enforce them. These estimates also reflect the recommended marketing efforts' results and expenditures, deemed as a tool for brand activation and growth.

Overall, the commitment of resources is crucial for favourable market results and should account for the realizable potential each opportunity presents. Hence, if Pimentel is to face unforeseen constraints that only allow for the selection of one market, Germany should be favoured, due to its projected financial results. Still, South Korea's current maturity stage and future potential displays a major growth opportunity.

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Appendixes

Appendixes in the main text have hyperlinks which direct the reader to the referred complement information. To return to the main text, a hyperlink is displayed after the consulted appendix.

Appendix 1 : IVDP Sales Guidelines

<table>
<tr><td colspan="2">Port wine commercialization is subject to a sales limit based on the wineries' produced and acquired wine quantities for the last production year. This quantity must be effectively declared by each agent to IVDP, which will then determine the sales capacity, according the following rules:</td></tr>
<tr><td>1</td><td>Agents may commercialize up to 30% of the produced wines of the last production year if they correspond to a minimum of 75% and a maximum of 125% of the prior year's sales.</td></tr>
<tr><td>2</td><td>If surpassing 125% of the prior year’s sales, agents may commercialize up to 15% of the produced wines of the last year for the surpassed amount. The remaining quantity is subject to rule 1.</td></tr>
<tr><td>3</td><td>Agents may sell the percentage resulting from $\frac{\mathbf{A}}{\mathbf{B}}=\frac{\mathbf{30}}{\mathbf{X}}$ of the produced wines of the last year, if they do not correspond to at least 75% of the sales of the prior year. A = 75% sales amount that should have been obtained, B = the actual obtained amount and X = the % amount acquired wines correspond to.</td></tr>
<tr><td colspan="2">Source:
Instituto do Vinho do Douro e do Porto. 2015.</td></tr>
</table>

To return to section press: *Appendix 1*

Appendix 2 : IVDP's Punctuation Method

Factor	Minimum	Maximum
Soil and Climate		
Localization	-50	600
Parcel inclination	1	101
Shelter	0	60
Altitude	-900	240
Stoniness	0	80
Exposition	-30	100
Agricultural factors		
Productivity	0	120
Grape variety	-150	150
Compass	0	50
Conduction system	0	100
Vine age	0	60

Source:

IVDP. 2019. http://www.ivdp.pt/pt/docs/Apresenta%C3%A7%C3%A3o_viticultores_2019.pdf.

To return to section press: *Appendix 2*

Appendix 3 : Pimentel Sales and Quantity by Product Category

Countries	2017		2018		2019	
	Quantity	Sales	Quantity	Sales	Quantity	Sales
Douro	673 711	2 344 289 €	726 833	2 456 169 €	960 341	3 441 025 €
Port	120 805	869 850 €	125 213	963 274 €	142 459	1 248 392 €
Other Products	455 738	834 379 €	594 140	639 220 €	919 663	380 576 €
Total	**1 250 254**	**4 048 517 €**	**1 446 186**	**4 058 663 €**	**2 022 463**	**5 069 993 €**

Countries	Growth 2017 to 2018		Growth 2018 to 2019	
	Quantity	Sales	Quantity	Sales
Douro	7.88%	4.77%	32.13%	40.10%
Port	3.65%	10.74%	13.77%	29.60%
Other Products	30.37%	-23.39%	54.79%	-40.46%
Total	15.67%	0.25%	39.85%	24.92%

To return to section press: *Appendix 3*

Appendix 4 : Pimentel Sales and Quantity by Product Category Growth from 2017 to 2019

Countries	2017		2018		2019	
	Quantity	Sales	Quantity	Sales	Quantity	Sales
Douro	53.89%	57.90%	50.26%	60.52%	47.48%	67.87%
Port	9.66%	21.49%	8.66%	23.73%	7.04%	24.62%
Other Products	36.45%	20.61%	41.08%	15.75%	45.47%	7.51%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

To return to Douro section press: *Appendix 4*

To return to Port section press: *Appendix 4*

Appendix 5 : Financial Analysis

Income Statement Values and Analysis from 2017 to 2019

Income Statement Values	2017	2018	2019	% change 2017 to 2018	% change 2018 to 2019
Sales Revenue[1]	3 868 888,14 €	4 016 434,31 €	5 008 137,71 €	3,81%	24,69%
Subsidies[2]	48 333,50 €	41 759,38 €	25 655,70 €	-13,60%	-38,56%
Inventories (variation)[3]	569 061,49 €	-78 077,24 €	442 732,26 €	-113,72%	-667,04%
COGS[4]	2 275 278,02 €	1 688 085,69 €	2 619 464,29 €	-25,81%	55,17%
Gross Profit	1 593 610,12 €	2 328 348,62 €	2 388 673,42 €	46,11%	2,59%
Operating Expenses[5]	1 296 314,99 €	1 466 305,00 €	1 983 762,02 €	13,11%	35,29%
Other Gains/Losses[6]	13 087,39 €	16 048,71 €	26 691,04 €	22,63%	66,31%
EBITDA	927 777,51 €	841 774,47 €	899 990,40 €	-9,27%	6,92%
Depreciation[7]	96 050,12 €	132 155,57 €	146 857,66 €	37,59%	11,12%
Operating Profit	831 727,39 €	709 618,90 €	753 132,74 €	-14,68%	6,13%
Interes[t8]	77 547,25 €	83 980,46 €	90 281,17 €	8,30%	7,50%
EBT	754 180,14 €	625 638,44 €	662 851,57 €	-17,04%	5,95%
Taxes[9]	130 140,85 €	145 764,06 €	148 799,74 €	12,00%	2,08%
Net Income **(1+2+3-4-5+6-7-8-9)**	624 039,29 €	479 874,38 €	514 051,83 €	-23,10%	7,12%

Balance Sheet Values from 2017 to 2019

Balance Sheet	2017	2018	2019
Non-Current Assets	641 374,63 €	698 579,60 €	715 731,04 €
Current Assets	5 244 061,37 €	5 680 226,16 €	6 661 071,25 €
Total Assets	5 885 436,00 €	6 378 805,76 €	7 376 802,29 €
Equity Changes	1 064 211,03 €	1 456 579,83 €	1 923 823,01 €
Net Income	624 039,47 €	479 874,38 €	514 051,83 €

Total Equity	1 688 250,50 €	1 936 454,21 €	2 437 874,84 €
Non-Current Liabilities	926 381,75 €	756 586,53 €	297 218,87 €
Current Liabilities	3 270 803,75 €	3 685 765,02 €	4 641 708,58 €
Total Liabilities	4 197 185,50 €	4 442 351,55 €	4 938 927,45 €

Efficiency Analysis from 2017 to 2019

Efficiency	2017	2018	2019
Average Inventory	-	2534458,91	2771522,15
Days to sell inventory	-	540,50	380,90
Average Accounts Receivable	-	1250775,22	1829349,82
Days to Collect	-	112,11	131,50
Average Accounts Payable	-	745387,33	748960,20
Purchases	-	1675933,42	3105743,05
Days to Pay	-	160,11	86,82
Cash Conversion Cycle	-	492,49	425,58

Liquidity Analysis from 2017 to 2019

Liquidity Ratios	2017	2018	2019
Current Ratio: $\frac{\text{Current Assets}}{\text{Current Liabilities}}$	1,60	1,54	1,44
Quick Ratio: $\frac{\text{Current Assets - Inventories}}{\text{Current Liabilities}}$	0,83	0,86	0,79
Cash Ratio: $\frac{\text{Cash}}{\text{Current Liabilities}}$	0,12	0,04	0,01
Net Working Capital: Current Assets- Current Liabilities	1 973 257,62 €	1 994 461,14 €	2 019 362,67 €

Solvency Analysis from 2017 to 2019

Solvency Ratios	2017	2018	2019
Debt to Equity $\frac{\text{Total Debt}}{\text{Equity}}$	1,32	1,11	0,99
Debt to Assets $\frac{\text{Total Debt}}{\text{Assets}}$	0,38	0,34	0,33
Financial Leverage Ratio $\frac{\text{Assets}}{\text{Equity}}$	3,49	3,29	3,03

To return to section press: *Appendix 5*

Appendix 6 : Pimentel Sales in Domestic and Foreign Markets from 2017 to 2019

Categories per Country	Sales 2017	Sales 2018	Sales 2019	Growth 2017 to 2018	Growth 2018 to 2019
Portugal	2 260 850 €	2 622 180 €	3 636 115 €	16.0%	38.7%
Douro	1 642 734 €	1 917 926 €	2 625 499 €	16.8%	36.9%
Port	544 184 €	633 343 €	793 031 €	16.4%	25.2%
Other Products	73 933 €	70 910 €	217 586 €	-4.1%	206.8%
Foreign Countries	1 787 667 €	1 436 483 €	1 433 878 €	-19.6%	-0.2%
Douro	701 555 €	538 244 €	815 526 €	-23.3%	51.5%
Port	325 666 €	329 930 €	455 362 €	1.3%	38.0%
Other Products	760 446 €	568 309 €	162 990 €	-25.3%	-71.3%
Total	4 048 517 €	4 058 663 €	5 069 993 €	0.3%	24.9%

Categories per Country	Sales 2017	Sales 2018	Sales 2019	Average sales percentage in the period under analysis
Portugal	55.84%	64.61%	71.72%	64.1%
Douro	40.58%	47.26%	51.79%	46.5%
Port	13.44%	15.60%	15.64%	14.9%
Other Products	1.83%	1.75%	4.29%	2.6%
Foreign Countries	44.16%	35.39%	28.28%	35.9%
Douro	17.33%	13.26%	16.09%	15.6%
Port	8.04%	8.13%	8.98%	8.4%
Other Products	18.78%	14.00%	3.21%	12.0%
Total	100.00%	100.00%	100.00%	100.0%

To return to section press: *Appendix 6*

Appendix 7 : Pimentel Sales of Douro and Port by Country from 2017 to 2019 (ordered by 2019 sales)

Country	Sales in 2017	Sales in 2018	Sales in 2019	Growth of Sales 2017 to 2018	Growth of 2018 to 2019
Pimentel Douro	**2 344 289 €**	**2 456 169 €**	**3 441 025 €**	**5%**	**40%**
Portugal	1 642 734 €	1 917 926 €	2 625 499 €	17%	37%
France	336 418 €	327 312 €	378 980 €	-3%	16%
Brazil	7 506 €	16 650 €	166 372 €	122%	899%
China	189 561 €	96 896 €	149 576 €	-49%	54%
United States	26 293 €	14 608 €	20 639 €	-44%	41%
Denmark	3 262 €	3 069 €	19 374 €	-6%	531%
Luxembourg	13 805 €	10 244 €	17 656 €	-26%	72%
Macao	0 €	0 €	9 963 €	-	-
Belgium	18 281 €	12 139 €	9 667 €	-34%	-20%
Canada	2 102 €	0 €	9 053 €	-100%	-
United Kingdom	8 553 €	7 574 €	7 647 €	-11%	1%
Netherlands	4 532 €	555 €	6 753 €	-88%	1116%
Switzerland	76 362 €	31 176 €	6 705 €	-59%	-78%
Channel Islands	0 €	2 999 €	4 553 €	-	52%
Czech Republic	1 036 €	1 056 €	3 732 €	2%	253%
Germany	5 068 €	11 675 €	2 511 €	130%	-78%
Bulgaria	0 €	0 €	1 561 €	-	-
Hong Kong	8 395 €	2 290 €	786 €	-73%	-66%
Austria	380 €	0 €	0 €	-100%	-
Pimentel Port	**869 850 €**	**963 274 €**	**1 248 392 €**	**11%**	**30%**
Portugal	544 184 €	633 343 €	793 031 €	16%	25%
France	90 349 €	169 043 €	207 611 €	87%	23%
Russian	0 €	0 €	72 266 €	-	-
China	138 986 €	73 102 €	41 470 €	-47%	-43%
Denmark	9 472 €	16 670 €	39 258 €	76%	135%

Brazil	1 299 €	0 €	28 501 €	-100%	-
United States	43 290 €	17 280 €	13 273 €	-60%	-23%
Switzerland	13 459 €	10 440 €	7 276 €	-22%	-30%
Czech Republic	1 780 €	2 638 €	6 755 €	48%	156%
Luxembourg	2 328 €	2 537 €	6 726 €	9%	165%
Bulgaria	0 €	0 €	6 699 €	-	-
United Kingdom	8 969 €	14 963 €	6 512 €	67%	-56%
Belgium	5 020 €	5 513 €	6 359 €	10%	15%
Canada	2 100 €	4 611 €	4 102 €	120%	-11%
Netherlands	5 925 €	8 202 €	4 062 €	38%	-50%
Germany	0 €	2 660 €	2 366 €	-	-11%
Spain	0 €	0 €	1 455 €	-	-
Channel Islands	0 €	2 271 €	670 €	-	-71%
Austria	757 €	0 €	0 €	-100%	-
Hong Kong	1 934 €	0 €	0 €	-100%	-
Grand Total	**3 214 138 €**	**3 419 443 €**	**4 689 417 €**	**6%**	**37%**

To Return to section press: *Appendix 7*

Appendix 8 : Political Variables

Variables	**Definition**	**Unit**
Voice and Accountability	Represents the perception of the population in playing a part in selecting their government. It also reflects the freedom of expression and association.	Ranges from 2,5 (strong) to -2,5 (weak)
Political Stability and Absence of Violence or Terrorism	Represents the perception of political stability as well as politically motivated violence, like terrorism.	Ranges from 2,5 (strong) to -2,5 (weak)
Government Effectiveness	Represents the perception of quality of public services, civil service, the quality of policy formulation, implementation, and government's commitment to ensure these policies.	Ranges from 2,5 (strong) to -2,5 (weak)

Regulatory Quality	Represents the perception of how the government formulate and implement policies/regulations to benefit the development of the private sector.	Ranges from 2,5 (strong) to -2,5 (weak)
Control of Corruption	Represents the perception of impartiality in the exercise of public power. Captures petty and grand forms of corruption, and power exercised by elites and private interests.	Ranges from 2,5 (strong) to -2,5 (weak)
Country Risk ** Inverted as the lower the risk, more secure the country is*	Represents the risk of companies in a given country default in payments due to conditions/events outside their control. It is measured by two indicators: the Financial Flows Indicator (short-term financing risks for an economy) and the Cyclical Risk Indicator (short-term disruptions in demand).	Risk Score from 1 (low) to 4 (high)
Average Political Risk ** Inverted, as a higher the average political risk*	Represents the impact political instability have on an investment return.	Risk score from 0 (weak) to 100 (high)
Corporate Tax Rate ** Inverted as the higher the tax imposed, less attractive the country becomes*	Tax imposed by the government on a firm's profit.	%
Sales Tax Rate ** Inverted as the higher the tax imposed, less attractive the country becomes*	Tax imposed by the government on the sale of goods and services, paid by the consumer and collected by the retailer to the government.	%
Social Security Tax Rate ** Inverted as the higher the tax imposed, less attractive the country becomes*	Reflects the tax applied to employees, withhold by employers and directed to fund government's Social Security Program.	%
World Press Freedom Index ** Inverted as the lower the score, more freedom of press exists*	Reflects the level of freedom given to media and is based on measuring pluralism, government independency, legislative framework quality and journalist safety.	Score from 0 (strong) to 100 (weak)
Trade Freedom Index	Represents the extent of tariff and non-tariff barriers that affect imports and exports of goods and services.	Score from 0 (weak) to 100 (strong)
Investment Freedom Index	Represents the regulatory restrictions that can be imposed on investments.	Score from 0 (weak) to 100 (strong)
Financial Freedom Index	Represents an economy's financial freedom by evaluating five areas of government interference in the financial sector.	Score from 0 (weak) to 100 (strong)

Sources:
Euler Hermes Economic Research. 2020.
Investopedia. 2020.
Reporters Without Borders. 2020.
SACE SIMEST. 2020.
The World Bank. 2018.
Trading Economics. Latest tax figures.
Worldwide Governance Indicators. 2019.

To return to section press: *Appendix 8*

Appendix 9 : Economic Variables

Variables	Definition	Unit
GDP per capita (2019)	Represents a country's economic output per person. Provides a perception on national economic prosperity.	Current International Dollars (PPP)
GDP growth rate (2018-19) (2019-20)	Compares the health of an economy over a period of time. Historical growths provide suggestions on an economy's general direction.	%
GDP growth rate (2020-21) (2021-22) (2022-23) (2023-24) (2024-25)	Attempts to predict an economy's future health. Provides a foundation on organizational spending and investments.	%
Transfer and Convertibility Risk ** Inverted, as a higher transfer and convertibility risk impedes borrowers of honouring their obligations to foreign creditors*	Represents the likelihood of governments imposing capital and exchange controls that would inhibit the conversion of local currency into foreign ones and the transferring of funds to non-resident creditors.	Risk score from 0 (weak) to 100 (high)
Ease of Doing Business Score	Assesses economies on business-related factors, including starting a business, paying taxes, trading across borders, enforcing contracts and resolving insolvency.	Score from 0 (weak) to 100 (strong)
Inflation ** Inverted, as a too high or too low inflation may signal a fall in purchases and investments*	Represents the change in the general level of prices of a current unit of currency in relation to prior periods. Calculated as the distance to ideal inflation value (2%).	% distance to the ideal value of 2%
Foreign Direct Investment	Represents investments made into national businesses by foreign companies or individuals. High inflows signal large growth prospects for investors.	Net Inflows as % of GDP

Terms of Trade	Represent the ratio between the index of export prices and the index of import prices. A country has positive terms of trade if export prices grow more than import prices, as for the same amount of exports, it can purchase more imports.	% (100% represents an even price growth)
Growth of Imports (2019)	Represent the change in foreign goods and services purchased from a country's residents and businesses.	%
Competitiveness Index	Assesses countries on 12 pillars of competitiveness, including factors related to institutions, appropriate infrastructure; education, efficient goods and labour markets and developed financial markets.	Score from 0 (weak) to 100 (strong)
Exchange Rate in relation to Euros	Represents the value of a nation's domestic currency (€, in this case) in relation to foreign currencies. Allows investors to analyse potential ventures.	€/currency
Unemployment Rate ** Inverted, as greater unemployment rates reflect unhealthy economies and lower consumer prosperity*	Represents the number of unemployed people as a percentage of the workforce. Allows to assess the health and prosperity of an economy.	% of labour force
Sources: Ambest. 2017. IMF. 2017. International Labour Organization. 2019. Investopedia. 2019. Investopedia. 2020. The World Bank. 2019. The World Bank. 2020. Trading Economics Forum. 2019. World Economic Forum. 2019. XE Currency. 2020.		

To return to section press: *Appendix 9*

Appendix 10 : Social Variables

Variables	Definition	Unit
Total Population	Represents all individuals falling within the scope of the census. It may include both usual residents of the country or all individuals present in the country at the time of the census.	Individuals
Population Growth	Represents the increase/decrease in the number of individuals in a given country.	% of total population
Urban Population	Represents the percentage of individuals inhabiting in areas with greater population density. It mainly refers to individuals living in cities.	% of total population
Population 15+	Represents the percentage of individuals aged at a minimum of 15 years old. It falls under the assumption that this population have already started to consume alcoholic beverages.	% of total population
GINI Index ** Inverted as the lower the score, the better the income is distributed*	Represents the distribution of income among individuals or households taking into consideration how the economy deviates from a perfectly equal distribution.	Ranges from 0 (perfect equality) to 100 (perfect inequality)
Number of tourists per year	Represents the number of international tourist arrivals to a given country.	Thousands of Individuals
Muslim Population ** Inverted as the higher the number of Muslims, the less attractive the country becomes*	Represents the percentage of Muslim individuals in a given country. It falls under the assumption that Muslims do not consume alcoholic beverages.	% of total population
Alcohol consumption per person	Represents the average alcohol consumption per capita in a given country. It only includes population aged at a minimum of 15 years old.	Litres
Cultural distance in relation to Portugal ** Inverted as the higher the score, more cultural distance exists*	Represents how two or more countries are, or are not, culturally related. Under Hofstede's cultural theory and its six dimensions, it was assessed each country in relation to Portugal.	Scores
Portuguese Emigrants	Represents the number of Portuguese individuals permanently living in a given country abroad.	Individuals
Social Progress Index	Represents how each country provide social and environmental needs for their citizens. It involves 54 indicators of basic human needs, foundations of well-being and opportunity to progress.	Ranges from 0 (minimum social progress) to 100 (maximum social progress)
Human Development Index	Represents the average achievement in essential dimensions of human development: long and healthy life, knowledge, decent standard of living.	Ranges from 0 (minimum human development) to 1 (maximum human development)

Sources: CIA The World Factbook. 2020. Hofstede Insights Compare Countries. 2020. MarketLine. 2019. Observatório de Emigração. Wikipedia. 2019 Our World in Data. 2016. Pew Research Center. 2020. Social Progress Imperative Organization. 2020. The World Bank and World Economic Forum. 2020. United Nations Development Programme – Human Development Reports. 2019. Wikipedia. 2019. Wikipedia. 2015. World Population Review. 2019/2020. World Population Review. 2020. World Tourism Organization. 2019.

To return to section press: *Appendix 10*

Appendix 11 : Technological Variables

Variable	Definition	Unit
R&D investment	Represents the gross domestic expenses on research and development, comprising capital and expenses from areas such Government, Higher education, business enterprise and	% of total GDP)
Global Innovation Index	Represents meticulous metrics about the innovation performance of countries based on 80 indicators ranging from political situation, education to business and infrastructure	Score from 0 (worst) to 100 (best)
Logistics Performance Index ** Inverted, as the lower score the best tis the logistics performance of a country*	Represents a benchmark capable of identifying countries' challenges and opportunities when faced with performance on trade logistics by evaluating the performance along the logistics supply chain of a country.	Rank from 1(best) to 160(worst)
Information and Communications Technology index * Inverted, as the lower score the best the is information and communication technology factors of a country	Represents and compares the level of information and communication technology within countries and is constituted with indicators from containing access, usage and skills	Rank from 1(best) to 168 (worst)
Infrastructure Quality	Represents the quality of infrastructure (transport, energy, communications, water) within a country	Score from 0 (worst) to 100 (best)

Sources: ITU. 2020. OECD. 2020. Statista. 2019. World Bank. 2020. World Bank. 2018. World Intellectual Property Organization. 2020.

To return to section press: *Appendix 11*

Appendix 12 : Environmental Variables

Variable	Definition	Unit
World Risk Index * Inverted, as the lower score the best greater is the preponderance of natural disaster exposure	Represents the risk of natural disaster occurrence based on the country's vulnerability and exposure risks.	Rank from 1(best) to100 (worst)
Environmental Performance Index	Represents the sustainability state level of each country, providing a scale determining whether countries are close or not of achieving certain environmental policy targets.	Score from 0 (worst) to 100 (best)
Sources: Bündnis Entwicklung Hift. 2020. Yale Center for Environmental Law & Policy. 2020.		

To return to section press: *Appendix 12*

Appendix 13 : Legal Variables

Variable	Definition	Unit
Expropriation and Breach of Contract ** Inverted, as the lower the rank the easier is to a public authority to get possession of private property*	Represents the extend of which a public authority can acquire, with or without consent, the ownership of a private property for public use.	Rank from 1(best) to 100 (worst)
Property Rights	Represents the level of intellectual and physical property rights	Rank from 0 (worst) to 10 (best)

Rule of Law	Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	Ranges from -2,5 (weak) and 2,5 strong)
Strength of legal rights index.	Measures the degree to which collateral and bankruptcy laws protect the right of debtors and creditors. The greater the score the better is to expand access to credit.	Ranges from 0 (weak) to 12(strong)
Sources: International Property Rights Index (IPR). 2019. SACE SIMEST. 2020. World Bank. 2019. World Governance Indicators. 2020.		

To return to section press: *Appendix 13*

Appendix 14 : Industry-Specific Variables

Variables	Definition	Unit
Contribution of Wine Sector to GDP ** Proxy Variable*	Represents an approximation of the importance of the wine sector to the overall economy of each company. This proxy variable was computed using the estimated revenues of the Wine Market over the total GDP of each country, in 2019.	%
Number of Alcohol-Distributing Wholesalers and Liquor Stores	Represents all the potential selling points of Wine within each country.	Number
Number of Wineries ** Inverted, as competition generally implies lower operating margins for new entrants*	Represents the competition in each country – amounts to the number of wine companies operating in each nationality.	Number
Number of workers in the sector	Represents how many persons are employed by winery companies in each country.	Number
Sales Taxes on Wine ** Boolean Variable*	Represents the presence or absence of taxes specific for wine.	0(Tax) - 1(No tax)
Average price of wine	Represents the average price of a bottle of wine (750ml).	US Dollars ($)

Wine Production per Capita ** Inverted, as strong national production may display a domestic wine drinking cultural preference*	Represents the wine production of each country, adjusted to the dimension of the population. This adjustment was performed in order to compare with the wine consumption per capita in each nationality.	Tonnes per person
Wine Consumption Per capita	Represents, on average, how much wine is consumed per habitant in each country. Allow one to understand how strong the wine demand is.	Litres per Person
Wine Imports	Represents the monetary value of all the imports of wine by country. Allows one to understand how much of the national consumption is served by international players.	Dollars
Wine Exports ** Inverted, as wine-exporting countries may entail higher competitiveness between foreign and domestic wines*	Represents the monetary value of all exports of each country. Provides a perception of how competitive each market is in terms of wine.	Dollars
Portuguese Wine Exports	Represents how much litres of Portuguese wine were exported to each country in 2019. Allows to understand the demand for Portuguese wine.	Litres
Growth of Portuguese Wine Exports (2019/2018)	Builds on the last variable, by representing the evolution of Portuguese wine's demand in each country.	%
Export price of Portuguese Wine	Represents the average price of a Portuguese Wine bottle in each country. Provides a perception on how countries value this product.	€
Growth of Export Price of Portuguese Wine (2019/2018)	Builds on the last variable, by representing the evolution of the price in each country.	%
Port Wine Sales	Represents the total monetary value of Port Wine Sales in each country. Provides a perception on how strong the demand for this product is by country.	€
Port Wine Sales Growth (2019/2018)	Builds on the last variable, providing a perception on how demand for Port Wine evolved within the years considered.	%
Douro Wine Sales	Represents the total monetary value of Douro Wine Sales in each country. Provides a perception on how strong the demand for this product is by country.	€
Douro Wine Sales Growth (2019/2018)	Builds on the last variable, providing a perception on how demand for Port Wine evolved within the years considered.	%

Sources:
IVDP. 2019.
IVDP. 2019/2018.
IVV. 2018/2019.
IVV. 2019.
Nation Master. 2019.
ORBIS. 2019.
Statista. 2019.
World Bank. 2019.
World Health Organization. 2016.
World Health Organization. 2019.
World Population Review. 2020.
World's Top Exports. 2020.

To return to section press: *Appendix 14*

Appendix 15 : Weight Categories

Number of Variables	72
Average Weight	1,39%
Category	**Weight**
Strong	2,31%
Medium-Strong	2,08%
Medium	1,39%
Medium-Weak	0,69%
Weak	0,46%

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Appendix 16 : Variable Weights ordered by category and by strength

Weights by Variable Category		
Political	Voice and Accountability	1,39%
	Political Stability and Absence of Violence	1,39%
	Government Effectiveness	1,39%
	Regulatory Quality	1,39%
	Control of Corruption	1,39%
	Average political risk	0,69%
	Country Risk	0,69%
	Corporate Tax Rate	1,39%
	Sales Tax Rate	0,69%
	Social Security Tax Rate	0,69%
	World Press Freedom Index	0,69%
	Trade Freedom Index	2,08%
	Investment Freedom Index	0,69%
	Financial Freedom Index	0,69%
Economic	GDP per capita	2,08%
	GDP growth (2018 to 2019)	1,39%
	GDP growth (2019 to 2020)	1,39%
	GDP growth (2020 to 2021)	0,69%
	GDP growth (2021 to 2022)	0,46%
	GDP growth (2022 to 2023)	0,46%
	GDP growth (2023 to 2024)	0,46%
	GDP growth (2024 to 2025)	0,46%
	Transfer and Convertibility Risk	1,39%
	Ease of Doing Business Score	2,08%
	Inflation	1,39%
	Foreign Direct Investment	1,39%
	Terms of Trade	1,39%

	Growth of Imports 2019	1,39%
	Competitiveness Index	1,39%
	Exchange Rate in relation to euros	1,39%
	Unemployment Rate	1,39%
Social	Total Population	0,69%
	Population Growth	0,69%
	Urban Population	1,39%
	Population 15+	2,08%
	GINI INDEX	1,39%
	Nº of Tourists per year	0,46%
	Muslim population	0,46%
	Alcohol consumption per person -2016	2,08%
	Cultural distance in relation to Portugal	0,69%
	Portuguese Emigrants	1,39%
	Social Progress Index	1,39%
	Human Development index	1,39%
Technological	R&D investment	1,39%
	Global Innovation Index	1,39%
	Logistics Performance Index	2,08%
	Information and Communications Technology (ICT) index	1,39%
	Infrastructure quality	2,08%
Environmental	World Risk Index (Natural Events Risk)	0,46%
	Environmental Performance Index	0,69%
Legal	Expropriation and Breach of Contract	1,39%
	Property Rights	1,39%
	Rule of Law	1,39%
	Strength of legal rights index	1,39%

Industry-Specific	Contribution of Wine Sector to GDP	2,31%
	Number of Alcohol Distributing Wholesalers	2,08%
	Number of Wineries	2,08%
	Number of Workers in the sector	2,08%
	Sales Taxes on Wine	0,46%
	Average Price of Wine (750 ml)	2,08%
	Wine production per capita	2,08%
	Wine consumption per capita	2,31%
	Wine Imports	2,31%
	Wine Exports	1,39%
	Exports Portuguese Wine Value	2,08%
	Exports Portuguese Wine Growth 2018/2019	2,08%
	Growth of Export Price of Portuguese Wine	2,08%
	Export Price of Portuguese Wine	2,08%
	Port Wine Sales	2,31%
	Port Wine Sales Growth	1,39%
	Douro Wine Sales	2,31%
	Douro Wine Sales Growth 2018-2019	1,39%
SUM		100%

Variables organized from Strong to Weak		
Strong	Contribution of Wine Sector to GDP	2,31%
	Wine consumption per capita	2,31%
	Wine Imports	2,31%
	Port Wine Sales	2,31%
	Douro Wine Sales	2,31%
Medium-Strong	Trade Freedom Index	2,08%
	GDP per capita	2,08%
	Ease of Doing Business Score	2,08%

	Population 15+	2,08%
	Alcohol consumption per person - 2016	2,08%
	Logistics Performance Index	2,08%
	Infrastructure quality	2,08%
	Number of Alcohol Distributing Wholesalers	2,08%
	Number of Wineries	2,08%
	Number of Workers in the sector	2,08%
	Average Price of Wine (750 ml)	2,08%
	Wine production per capita	2,08%
	Exports Portuguese Wine Value	2,08%
	Exports Portuguese Wine Growth 2018/2019	2,08%
	Growth of Export Price of Portuguese Wine	2,08%
	Export Price of Portuguese Wine	2,08%
Medium	Voice and Accountability	1,39%
	Political Stability and Absence of Violence	1,39%
	Government Effectiveness	1,39%
	Regulatory Quality	1,39%
	Control of Corruption	1,39%
	Corporate Tax Rate	1,39%
	GDP growth (2018 to 2019)	1,39%
	GDP growth (2019 to 2020)	1,39%
	Transfer and Convertibility Risk	1,39%
	Inflation	1,39%
	Foreign Direct Investment	1,39%
	Terms of Trade	1,39%
	Growth of Imports 2019	1,39%
	Competitiveness Index	1,39%
	Exchange Rate in relation to euros	1,39%
	Unemployment Rate	1,39%
	Urban Population	1,39%

	GINI INDEX	1,39%
	Portuguese Emigrants	1,39%
	Social Progress Index	1,39%
	Human Development index	1,39%
	R&D investment	1,39%
	Global Innovation Index	1,39%
	Information and Communications Technology (ICT) index	1,39%
	Expropriation and Breach of Contract	1,39%
	Property Rights	1,39%
	Rule of Law	1,39%
	Strength of legal rights index	1,39%
	Wine Exports	1,39%
	Port Wine Sales Growth	1,39%
	Douro Wine Sales Growth 2018-2019	1,39%
Medium-Weak	Average political risk	0,69%
	Country Risk	0,69%
	Sales Tax Rate	0,69%
	Social Security Tax Rate	0,69%
	World Press Freedom Index	0,69%
	Investment Freedom Index	0,69%
	Financial Freedom Index	0,69%
	GDP growth (2020 to 2021)	0,69%
	Total Population	0,69%
	Population Growth	0,69%
	Cultural distance in relation to Portugal	0,69%
	Environmental Performance Index	0,69%
Weak	GDP growth (2021 to 2022)	0,46%
	GDP growth (2022 to 2023)	0,46%
	GDP growth (2023 to 2024)	0,46%

	GDP growth (2024 to 2025)	0,46%
	Nº of Tourists per year	0,46%
	Muslim population	0,46%
	World Risk Index (Natural Events Risk)	0,46%
	Sales Taxes on Wine	0,46%
SUM		100%

To return to section press: *Appendix 16*

Appendix 17 : Country Rankings

Countries	Final Score	C4 had sales in 2019	Ranking Position
United States	0.92	Yes	1
United Kingdom	0.73	Yes	2
Switzerland	0.70	Yes	3
Denmark	0.67	Yes	4
Germany	0.67	Yes	5
Netherlands	0.61	Yes	6
Canada	0.61	Yes	7
Portugal	0.60	Yes	8
France	0.58	Yes	9
Norway	0.57	No	10
Singapore	0.57	Yes	11
Sweden	0.57	No	12
Ireland	0.56	No	13
Belgium	0.54	Yes	14
Finland	0.53	No	15
Luxembourg	0.53	Yes	16
South Korea	0.46	No	17

Austria	0.44	Yes	18
Australia	0.43	No	19
Japan	0.40	No	20
Cyprus	0.40	No	21
Iceland	0.39	No	22
New Zealand	0.39	No	23
Malta	0.37	No	24
United Arab Emirates	0.36	No	25
Estonia	0.35	No	26
Czech Republic	0.32	Yes	27
Hungary	0.32	No	28
Brazil	0.29	Yes	29
Latvia	0.29	No	30
Lithuania	0.26	No	31
Romania	0.24	No	32
Slovenia	0.24	No	33
Spain	0.24	Yes	34
Poland	0.22	No	35
China	0.21	Yes	36
Israel	0.19	No	37
Slovakia	0.16	No	38
Qatar	0.15	No	39
Bulgaria	0.10	Yes	40
Croatia	0.09	No	41
Italy	0.08	No	42
Georgia	0.08	No	43
Chile	0.07	No	44
Malaysia	0.05	No	45
Uruguay	0.04	No	46
Colombia	0.02	No	47

Serbia	0.01	No	48
Russia	-0.01	Yes	49
Peru	-0.03	No	50
Thailand	-0.03	No	51
Greece	-0.03	No	52
Panama	-0.07	No	53
Mexico	-0.07	No	54
Moldova	-0.07	No	55
Vietnam	-0.08	No	56
Macedonia	-0.08	No	57
Indonesia	-0.09	No	58
Montenegro	-0.11	No	59
Costa Rica	-0.12	No	60
Oman	-0.12	No	61
Ukraine	-0.14	No	62
Kazakhstan	-0.15	No	63
Albania	-0.17	No	64
Armenia	-0.18	No	65
Bosnia and Herzegovina	-0.21	No	66
Mongolia	-0.21	No	67
Azerbaijan	-0.24	No	68
The Bahamas	-0.25	No	69
Jordan	-0.25	No	70
El Salvador	-0.25	No	71
Belarus	-0.26	No	72
Turkey	-0.26	No	73
Paraguay	-0.27	No	74
Jamaica	-0.28	No	75
Dominican Republic	-0.30	No	76
Philippines	-0.31	No	77

Laos	-0.33	No	78
India	-0.34	No	79
Uzbekistan	-0.36	No	80
Ecuador	-0.37	No	81
Maldives	-0.39	No	82
Cambodia	-0.40	No	83
Guatemala	-0.40	No	84
Sri Lanka	-0.40	No	85
Honduras	-0.42	No	86
Bhutan	-0.42	No	87
Argentina	-0.42	No	88
Kyrgyzstan	-0.42	No	89
Egypt	-0.47	No	90
Belize	-0.47	No	91
Nepal	-0.48	No	92
Iran	-0.50	No	93
Bolivia	-0.50	No	94
Lebanon	-0.51	No	95
Cuba	-0.52	No	96
Nicaragua	-0.53	No	97
Myanmar	-0.54	No	98
Tajikistan	-0.58	No	99
Bangladesh	-0.59	No	100
Pakistan	-0.72	No	101
Haiti	-0.84	No	102
Venezuela	-1.08	No	103

To return to section press: *Appendix 17*

Appendix 18 : Country Clustering Correlations: Correlation Strength

Correlation strength	Interpretation	Unique correlations	Relative Unique Correlations
$-0,5<x<0,5$	Low correlation	2119	82,9%
$\lvert 0,5\rvert \leq x<\lvert 0,6\rvert$	Moderate correlation	130	5,1%
$\lvert 0,6\rvert \leq x<\lvert 0,7\rvert$	Moderate correlation	136	5,3%
$\lvert 0,7\rvert \leq x<\lvert 0,8\rvert$	High correlation	91	3,6%
$\lvert 0,8\rvert \leq x<\lvert 0,9\rvert$	High correlation	59	2,3%
$\lvert 0,9\rvert \leq x<\lvert 1\rvert$	Very High correlation	21	0,8%
Source: Jaadi, Zakaria. 2019. https://towardsdatascience.com/eveything-you-need-to-know-about-interpreting-correlations-2c485841c0b8			

To return to section press: *Appendix 18*

Appendix 19 : Elimination procedure of Correlated Variables

	Eliminated variables

Variables displayed in descendent order of the number of correlations	Correlated Variables
Government Effectiveness (eliminated first)	Regulatory Quality
	Control of Corruption
	Average Political Risk
	Competitiveness Index
	Expropriation and Breach of contract
	Rule of Law
Expropriation and breach of contract (eliminated second)	Government Effectiveness
	Regulatory Quality
	Control of Corruption
	Average Political Risk

	Rule of Law Competitiveness Index
Average Political Risk (eliminated third)	Government Effectiveness Regulatory Quality Transfer and Convertibility Risk Expropriation and Breach of contract Rule of Law
Rule of law (eliminated fourth)	Government Effectiveness Regulatory quality Control of corruption Average political risk Expropriation and breach of contract
Regulatory Quality (all variables with correlation had been eliminated)	Government Effectiveness Average Political Risk Expropriation and breach of contract Rule of Law
Control of Corruption (all variables with correlation had been eliminated)	Government Effectiveness Expropriation and Breach of contract Rule of Law
Competitiveness index (all variables with correlation had been eliminated)	Expropriation and breach of contract Government Effectiveness
Social Progress Index (eliminated fifth)	EPI Human development index
GDP growth (2024-2025) (eliminated sixth)	GDP growth (2022-2023) GDP growth (2023-2024)
GDP growth (2023-2024) (eliminated seventh)	GDP growth (2022-2023) GDP growth (2024-2025)
GDP growth (2022-2023)	GDP growth (2023-2024) GDP growth (2024-2025)

Human development index (all variables with correlation had been eliminated)	Social progress index
EPI (all variables with correlation had been eliminated)	Social progress index
Transfer and Convertibility Risk (all variables with correlation had been eliminated)	Average political risk

***To return to section press:** Appendix 19*

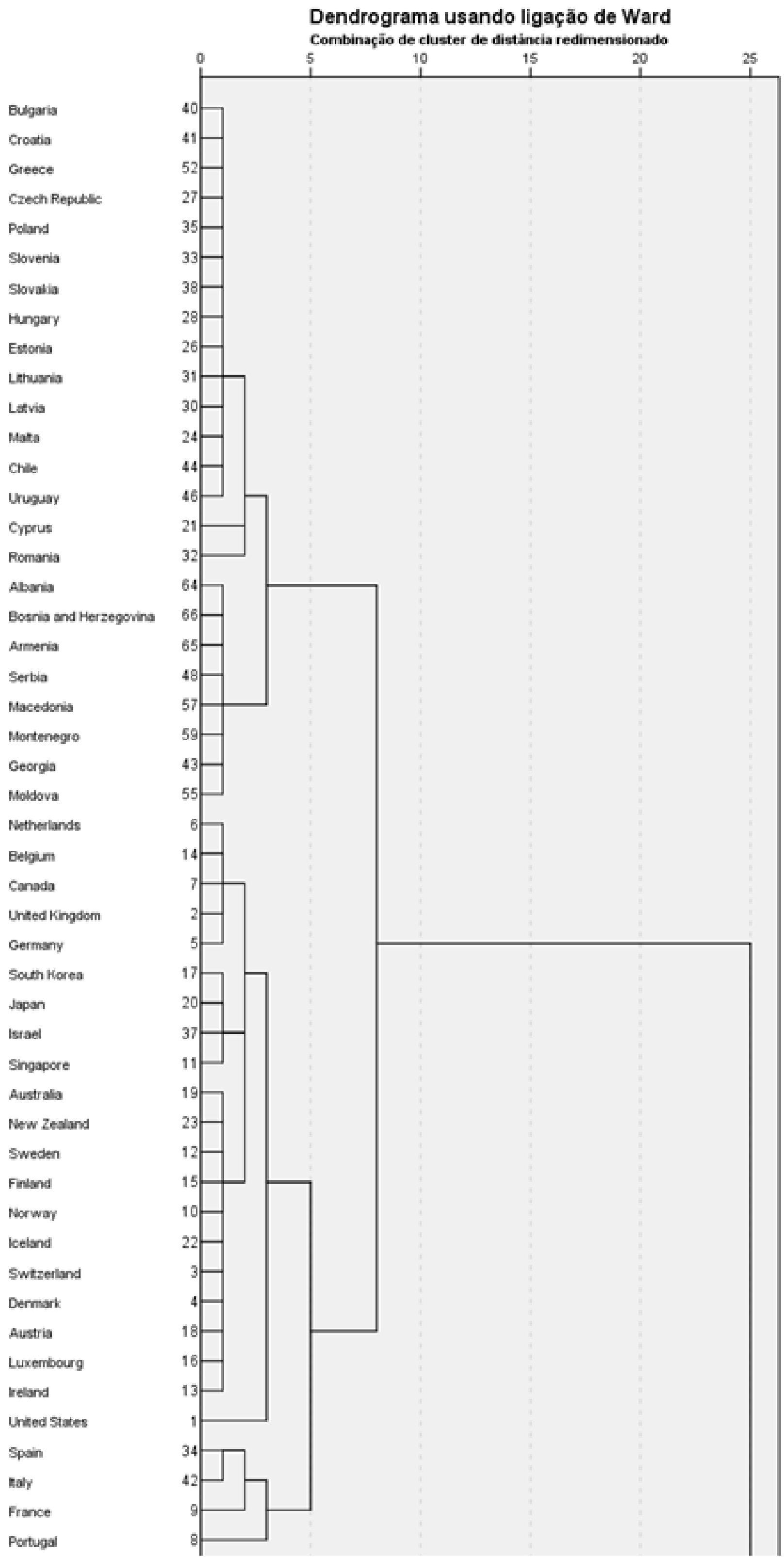
Appendix 20 : Deleted Variables and Correlation Strength Results

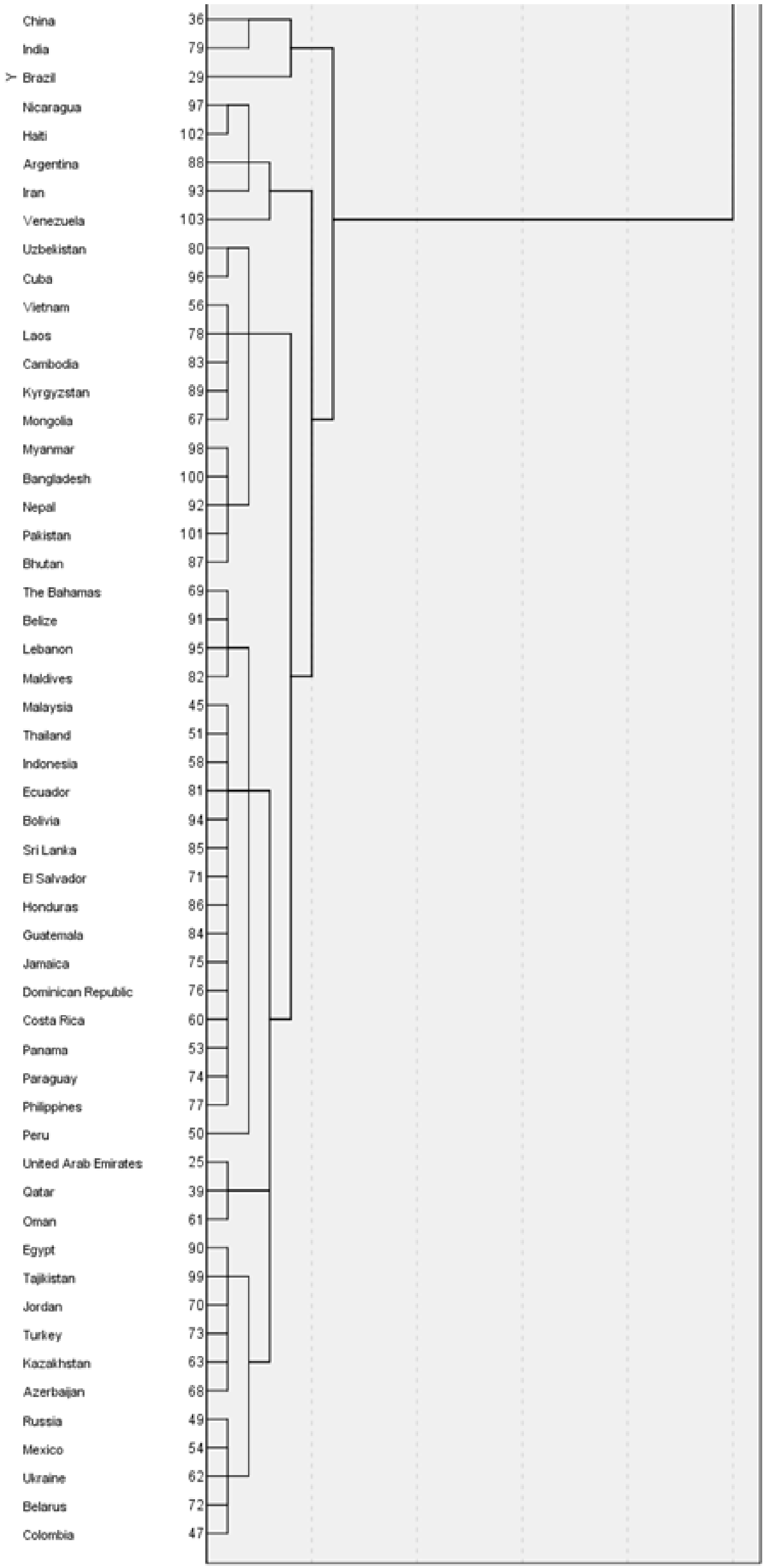
Deleted Variables	**Weight**
Government Effectiveness	Medium
Expropriation and Breach of Contract	Medium
Average Political Risk	Medium-Weak
Rule of Law	Medium
Social Progress Index	Medium
GDP growth (2024-2025)	Weak
GDP growth (2023-2024)	Weak

Correlation strength	**Interpretation**	**Unique correlations**	**Relative Unique Correlations**
-0,5<x<0,5	Low correlation	1796	86,3%
|0,5|≤x<|0,6|	Moderate correlation	108	5,2%
|0,6|≤x<|0,7|	Moderate correlation	95	4,6%
|0,7|≤x<|0,8|	High correlation	53	2,5%
|0,8|≤x<|0,9|	High correlation	28	1,3%
|0,9|≤x<|1|	Very High correlation	0	0,0%

***To return to section press:** Appendix 20*

Appendix 21 : Dendrogram and Clusters of all 65 Variables (A)




China 36
India 79
Brazil 29
Nicaragua 97
Haiti 102
Argentina 88
Iran 93
Venezuela 103
Uzbekistan 80
Cuba 96
Vietnam 56
Laos 78
Cambodia 83
Kyrgyzstan 89
Mongolia 67
Myanmar 98
Bangladesh 100
Nepal 92
Pakistan 101
Bhutan 87
The Bahamas 69
Belize 91
Lebanon 95
Maldives 82
Malaysia 45
Thailand 51
Indonesia 58
Ecuador 81
Bolivia 94
Sri Lanka 85
El Salvador 71
Honduras 86
Guatemala 84
Jamaica 75
Dominican Republic 76
Costa Rica 60
Panama 53
Paraguay 74
Philippines 77
Peru 50
United Arab Emirates 25
Qatar 39
Oman 61
Egypt 90
Tajikistan 99
Jordan 70
Turkey 73
Kazakhstan 63
Azerbaijan 68
Russia 49
Mexico 54
Ukraine 62
Belarus 72
Colombia 47

**countries Pimentel currently has sales*

Note: Ranking below country name

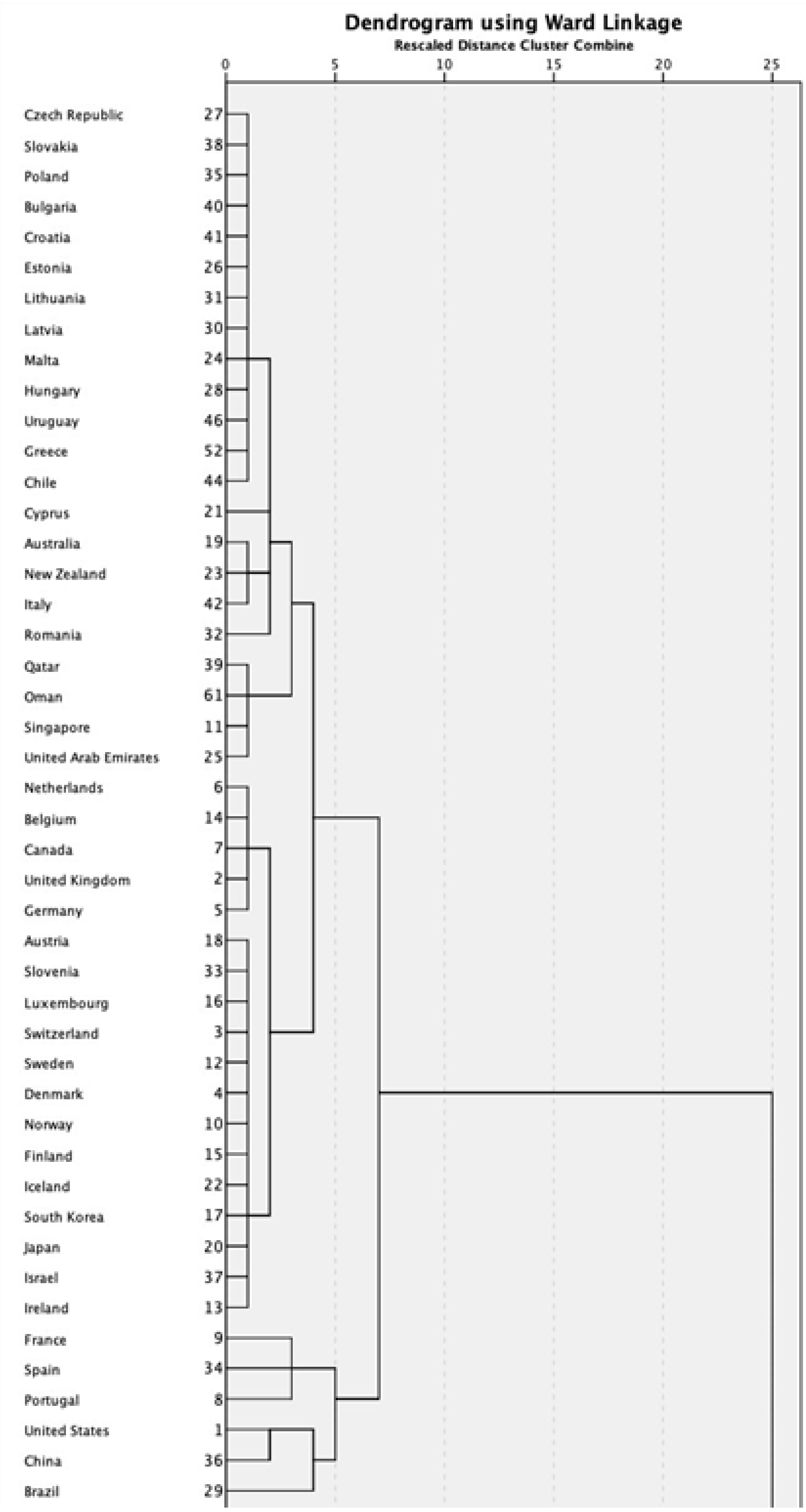
Cluster 1	Bulgaria	Croatia	Greece	Czech Republic	Poland	Slovenia	Slovakia
	40	41	52	27	35	33	38
	Hungary	Estonia	Lithuania	Latvia	Malta	Chile	Uruguay
	28	26	31	30	24	44	46
Cluster 2	Cyprus						
	21						
Cluster 3	Romania						
	32						
Cluster 4	Albania	Bosnia and Herzegovina	Armenia	Serbia			
	64	66	65	48			
	Macedonia	Montenegro	Georgia	Moldova			
	57	59	43	55			
Cluster 5	Netherlands*	Belgium*	Canada*	United Kingdom*	Germany*		
	6	14	7	2	5		
Cluster 6	South Korea	Japan	Israel	Singapore*			
	17	20	37	11			
Cluster 7	Australia	New Zealand	Sweden	Finland	Norway	Iceland	
	19	23	12	15	10	22	
	Switzerland*	Denmark*	Austria	Luxembourg*	Ireland		
	3	4	18	16	13		
Cluster 8	United States*						
	1						
Cluster 9	Spain*	Italy					
	34	42					
Cluster 10	France*						
	9						

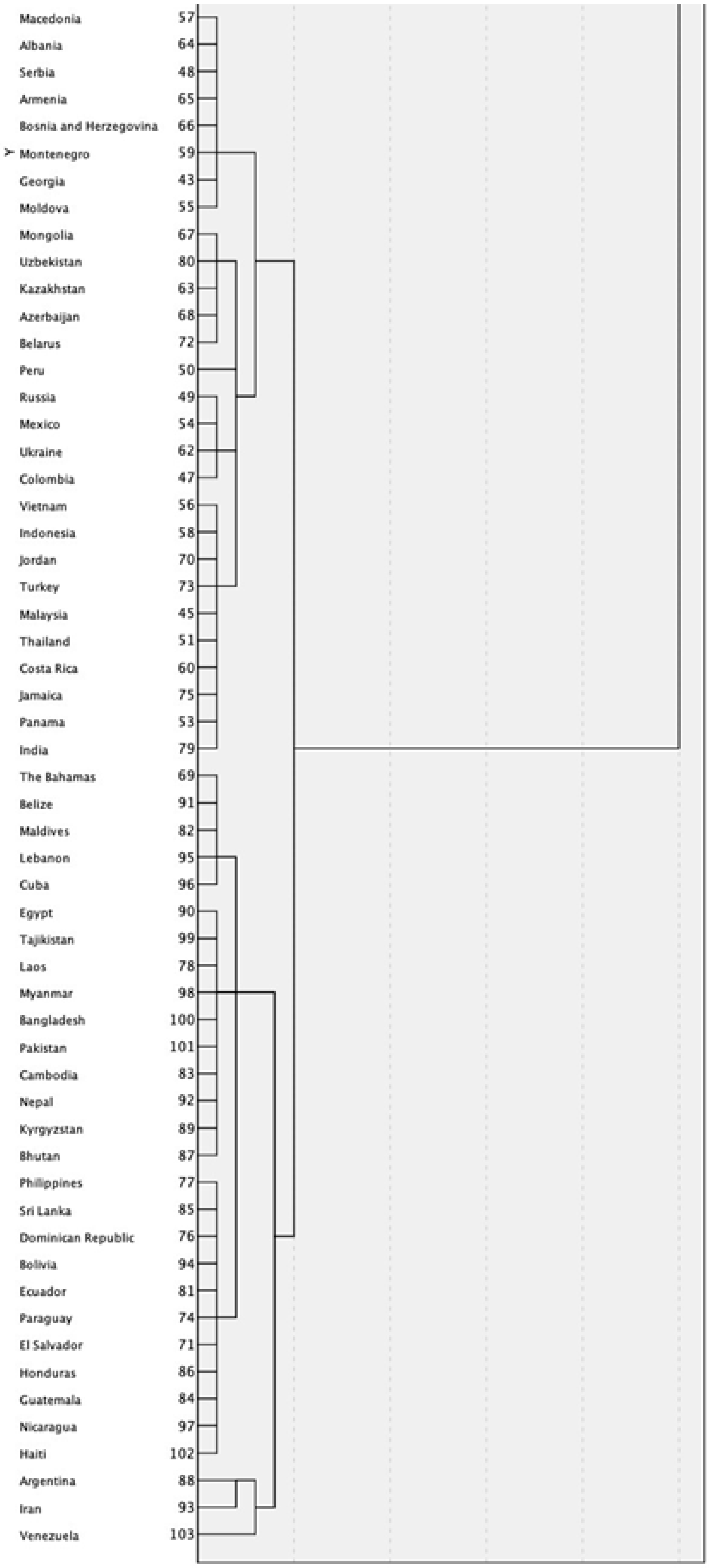
Cluster 11	Portugal*				
	8				
Cluster 12	China*				
	36				
Cluster 13	India				
	79				
Cluster 14	Brazil*				
	29				
Cluster 15	Nicaragua	Haiti			
	97	102			
Cluster 16	Argentina				
	88				
Cluster 17	Iran				
	93				
Cluster 18	Venezuela				
	103				
Cluster 19	Uzbekistan	Cuba			
	80	96			
Cluster 20	Vietnam	Laos	Cambodia	Kyrgyzstan	Mongolia
	56	78	83	89	67
Cluster 21	Myanmar	Bangladesh	Nepal	Pakistan	Bhutan
	98	100	92	101	87
Cluster 22	The Bahamas	Belize	Lebanon	Maldives	
	69	91	95	82	
Cluster 23	Malaysia	Thailand	Indonesia	Ecuador	Bolivia
	45	51	58	81	94
	Guatemala	Jamaica	Dominican Republic	Costa Rica	Panama
	84	75	76	60	53

	Sri Lanka	Paraguay	El Salvador	Philippines	Honduras	
	85	74	71	77	86	
Cluster 24	Peru					
	50					
Cluster 25	United Arab Emirates	Qatar	Oman			
	25	39	61			
Cluster 26	Egypt	Tajikistan	Jordan	Turkey	Kazakhstan	Azerbaijan
	90	99	70	73	63	68
Cluster 27	Russia*	Mexico	Ukraine	Belarus	Colombia	
	49	54	62	72	47	

To return to section press: *Appendix 21*

Appendix 22 : Dendrogram and Clusters of 48 Variables (B)




Macedonia 57
Albania 64
Serbia 48
Armenia 65
Bosnia and Herzegovina 66
Y Montenegro 59
Georgia 43
Moldova 55
Mongolia 67
Uzbekistan 80
Kazakhstan 63
Azerbaijan 68
Belarus 72
Peru 50
Russia 49
Mexico 54
Ukraine 62
Colombia 47
Vietnam 56
Indonesia 58
Jordan 70
Turkey 73
Malaysia 45
Thailand 51
Costa Rica 60
Jamaica 75
Panama 53
India 79
The Bahamas 69
Belize 91
Maldives 82
Lebanon 95
Cuba 96
Egypt 90
Tajikistan 99
Laos 78
Myanmar 98
Bangladesh 100
Pakistan 101
Cambodia 83
Nepal 92
Kyrgyzstan 89
Bhutan 87
Philippines 77
Sri Lanka 85
Dominican Republic 76
Bolivia 94
Ecuador 81
Paraguay 74
El Salvador 71
Honduras 86
Guatemala 84
Nicaragua 97
Haiti 102
Argentina 88
Iran 93
Venezuela 103

**countries Pimentel currently has sales*

Note: Ranking below country name

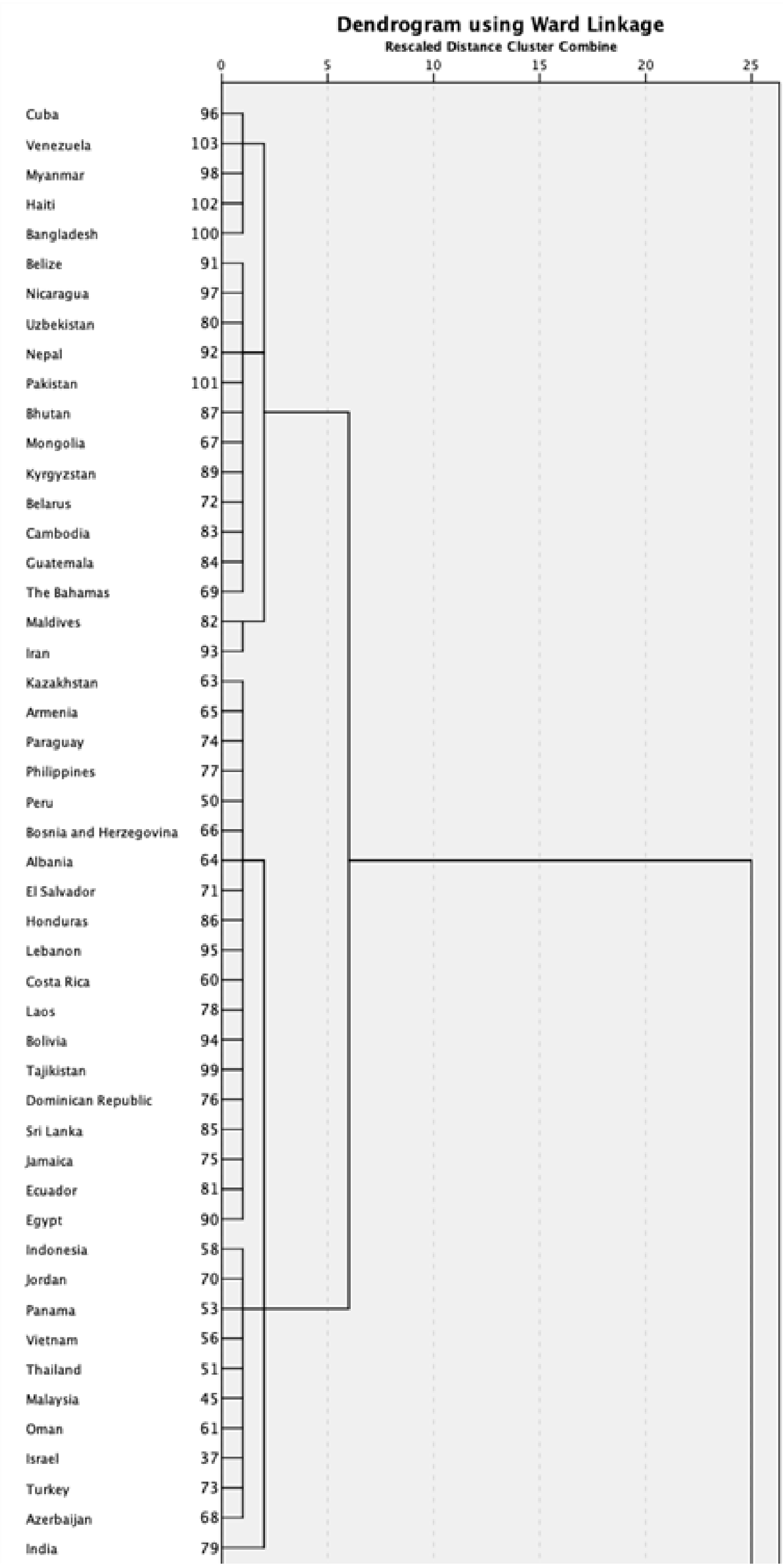
Cluster 1	Czech Republic	Slovakia	Poland	Bulgaria	Croatia	Estonia	Lithuania
	27	38	35	40	41	26	31
	Latvia	Malta	Hungary	Uruguay	Greece	Chile	
	30	24	28	46	52	44	
Cluster 2	Cyprus						
	21						
Cluster 3	Australia	New Zealand	Italy				
	19	23	42				
Cluster 4	Romania						
	32						
Cluster 5	Qatar	Oman	Singapore	United Arab Emirates			
	39	61	11	25			
Cluster 6	Netherlands*	Belgium*	Canada*	United Kingdom*	Germany*		
	6	14	7	2	5		
Cluster 7	Austria	Slovenia	Luxembourg*	Switzerland*	Sweden		
	18	33	16	3	12		
	Finland	Iceland	South Korea	Japan	Israel		
	15	22	17	20	37		
	Denmark*	Ireland	Norway				
	4	13	10				
Cluster 8	France*						
	9						
Cluster 9	Spain*						
	34						
Cluster 10	Portugal*						
	8						
	United States*						

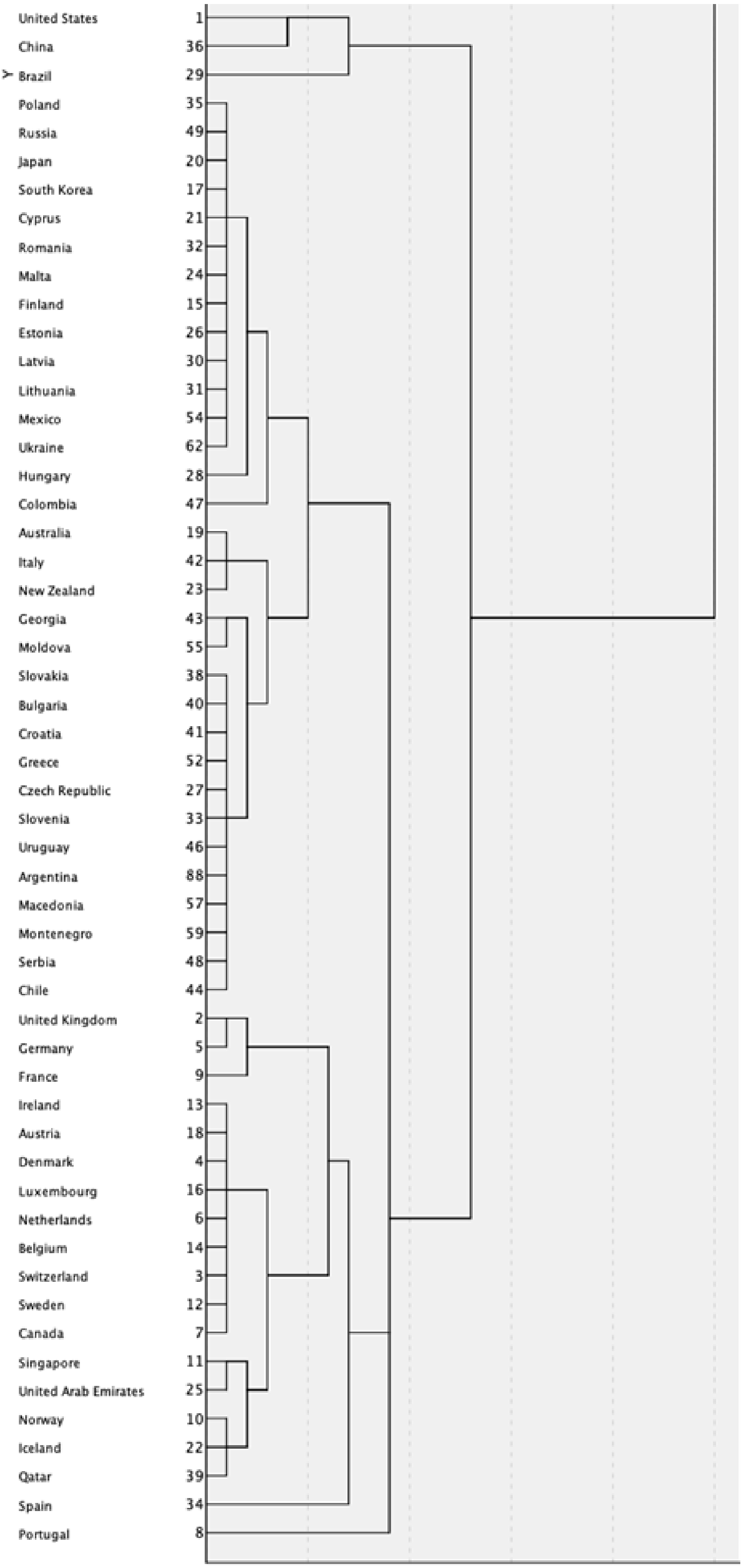
Cluster 11	1					
Cluster 12	China*					
	36					
Cluster 13	Brazil*					
	29					
Cluster 14	Macedonia	Albania	Serbia	Armenia		
	57	64	48	65		
	Bosnia and Herzegovina	Montenegro	Georgia	Moldova		
	66	59	43	55		
Cluster 15	Mongolia	Uzbekistan	Kazakhstan	Azerbaijan	Belarus	
	67	80	63	68	72	
Cluster 16	Peru					
	50					
Cluster 17	Russia*	Mexico	Ukraine	Colombia		
	49	54	62	47		
Cluster 18	Vietnam	Indonesia	Jordan	Turkey	Malaysia	
	56	58	70	73	45	
Cluster 19	Thailand	Costa Rica	Jamaica	Panama	India	
	51	60	75	53	79	
	The Bahamas	Belize	Maldives	Lebanon	Cuba	
	69	91	82	95	96	
Cluster 20	Egypt	Tajikistan	Laos	Myanmar	Bangladesh	
	90	99	78	98	100	
	Pakistan	Cambodia	Nepal	Kyrgyzstan	Bhutan	
	101	83	92	89	87	
Cluster 21	Philippines	Sri Lanka	Dominican Republic	Bolivia	Ecuador	Paraguay
	77	85	76	94	81	74
	El Salvador	Honduras	Guatemala	Nicaragua	Haiti	

	71	86	84	97	102
Cluster 22	Argentina 88				
Cluster 23	Iran 93				
Cluster 24	Venezuela 103				

To return to section press: *Appendix 22*

Appendix 23 : Dendrogram and Clusters of 21 Variables (C)




United States 1
China 36
Brazil 29
Poland 35
Russia 49
Japan 20
South Korea 17
Cyprus 21
Romania 32
Malta 24
Finland 15
Estonia 26
Latvia 30
Lithuania 31
Mexico 54
Ukraine 62
Hungary 28
Colombia 47
Australia 19
Italy 42
New Zealand 23
Georgia 43
Moldova 55
Slovakia 38
Bulgaria 40
Croatia 41
Greece 52
Czech Republic 27
Slovenia 33
Uruguay 46
Argentina 88
Macedonia 57
Montenegro 59
Serbia 48
Chile 44
United Kingdom 2
Germany 5
France 9
Ireland 13
Austria 18
Denmark 4
Luxembourg 16
Netherlands 6
Belgium 14
Switzerland 3
Sweden 12
Canada 7
Singapore 11
United Arab Emirates 25
Norway 10
Iceland 22
Qatar 39
Spain 34
Portugal 8

**countries Pimentel currently has sales*

Note: Ranking below country name

Cluster 1	Cuba	Venezuela	Myanmar	Haiti	Bangladesh		
	96	103	98	102	100		
Cluster 2	Belize	Nicaragua	Uzbekistan	Nepal	Pakistan	Bhutan	
	91	97	80	92	101	87	
	Mongolia	Kyrgyzstan	Belarus	Cambodia	Guatemala	The Bahamas	
	67	89	72	83	84	69	
Cluster 3	Maldives	Iran					
	82	93					
Cluster 4	Kazakhstan	Armenia	Paraguay	Philippines	Peru	Bosnia and Herz.	Albania
	63	65	74	77	50	66	64
	El Salvador	Honduras	Lebanon	Costa Rica	Laos	Bolivia	
	71	86	95	60	78	94	
	Tajikistan	Dominican Republic	Sri Lanka	Jamaica	Ecuador	Egypt	
	99	76	85	75	81	90	
Cluster 5	Indonesia	Jordan	Panama	Vietnam	Thailand		
	58	70	53	56	51		
	Malaysia	Oman	Israel	Turkey	Azerbaijan		
	45	61	37	73	68		
Cluster 6	India						
	79						
Cluster 7	United States*						
	1						
Cluster 8	China*						
	36						
Cluster 9	Brazil*						
	29						

Cluster 10	Poland	Russia*	Japan	South Korea	Cyprus	Romania	Malta
	35	49	20	17	21	32	24
	Finland	Estonia	Latvia	Lithuania	Mexico	Ukraine	
	15	26	30	31	54	62	
Cluster 11	Hungary						
	28						
Cluster 12	Colombia						
	47						
Cluster 13	Australia	Italy	New Zealand				
	19	42	23				
Cluster 14	Georgia	Moldova					
	43	55					
Cluster 15	Slovakia	Bulgaria	Croatia	Greece	Czech Republic	Slovenia	
	38	40	41	52	27	33	
	Uruguay	Argentina	Macedonia	Montenegro	Serbia	Chile	
	46	88	57	59	48	44	
Cluster 16	United Kingdom*	Germany*					
	2	5					
Cluster 17	France*						
	9						
Cluster 18	Ireland	Austria*	Denmark*	Luxembourg *	Netherlands		
	13	18	4	16	6		
	Belgium*	Switzerland*	Sweden	Canada*			
	14	3	12	7			
Cluster 19	Singapore*	United Arab Emirates					
	11	25					
Cluster 20	Norway	Iceland	Qatar				
	10	22	39				
	Spain*						

Cluster 21	34
Cluster 22	Portugal* 8

To return to section press: *Appendix 23*

Appendix 24 : Clustering Assessments' Variables and Weights per Dimension

Dimension	Number of Variables in Clustering Assessment A		Weights of Variables in Clustering Assessment A	
	Absolute	**Relative**	**Sum of Weights**	**Relative Sum**
Political	12	18,46%	13,19%	14,21%
Economic	15	23,08%	19,68%	21,20%
Social	11	16,92%	12,73%	13,72%
Technological	5	7,69%	8,33%	8,98%
Environmental	2	3,08%	1,16%	1,25%
Legal	2	3,08%	2,78%	2,99%
Industry	18	27,69%	34,95%	37,66%
Total	**65**	**100,00%**	**92,82%**	**100,00%**

Dimension	Number of Variables in Clustering Assessment B		Weights of Variables in Clustering Assessment B	
	Absolute	Relative	Sum of Weights	Relative Sum
Political	6	12,50%	9,03%	10,96%
Economic	12	25,00%	18,06%	21,91%
Social	6	12,50%	9,72%	11,80%
Technological	5	10,42%	8,33%	10,11%
Environmental	0	0,00%	0,00%	0,00%
Legal	2	4,17%	2,78%	3,37%
Industry	17	35,42%	34,49%	41,85%
Total	**48**	**100,00%**	**82,41%**	**100,00%**

Dimension	Number of Variables in Clustering Assessment C		Weights of Variables in Clustering Assessment C	
	Absolute	Relative	Sum of Weights	Relative Sum
Political	1	4,76%	2,08%	4,64%
Economic	2	9,52%	4,17%	9,28%
Social	2	9,52%	4,17%	9,28%
Technological	2	9,52%	4,17%	9,28%
Environmental	0	0,00%	0,00%	0,00%
Legal	0	0,00%	0,00%	0,00%
Industry	14	66,67%	30,32%	67,53%
Total	**21**	**100,00%**	**44,91%**	**100,00%**

To return to section press: *Appendix 24*

Appendix 25 : Cluster B Groups' Average Values per Dimension

Clusters	Political Average	Economic Average	Social Average	Technological Average	Legal Average	Industry Average
Overall Average	**-0,091**	**-0,048**	**0,160**	**0,091**	**0,007**	**0,145**
1	0,514	0,160	0,508	0,325	0,275	-0,015
2	0,727	0,806	0,485	0,398	0,471	0,032
3	0,771	0,302	0,552	0,778	0,899	-0,251
4	0,335	0,205	0,370	0,064	0,716	0,439
5	0,575	0,420	0,192	0,508	-0,747	0,070
Group 1	**0,584**	**0,379**	**0,421**	**0,415**	**0,323**	**0,055**
6	0,836	0,334	0,829	1,184	0,661	0,497
7	0,800	0,401	0,623	1,201	0,173	0,127
Group 2	**0,818**	**0,368**	**0,726**	**1,193**	**0,417**	**0,312**
8	0,448	0,149	1,201	1,131	0,177	0,364
9	0,428	-0,079	0,558	0,763	0,169	-0,142
10	0,714	0,138	0,490	0,599	-0,205	0,735
Group 3	**0,530**	**0,069**	**0,750**	**0,831**	**0,047**	**0,319**
11	0,631	0,498	0,899	1,343	1,407	1,050
12	-0,806	0,276	-0,362	0,688	-0,060	0,592
13	-0,813	-0,332	1,279	0,029	-0,454	1,054
Group 4	**-0,329**	**0,147**	**0,605**	**0,687**	**0,298**	**0,899**
14	0,086	-0,225	0,068	-0,321	0,346	-0,095
15	-0,552	0,241	-0,127	-0,570	-0,209	-0,173
16	-0,163	-0,003	-0,293	-0,527	0,249	0,261
17	-0,546	-0,034	-0,129	-0,122	0,622	0,187
18	-0,278	-0,058	-0,494	-0,152	0,329	-0,160
Group 5	**-0,291**	**-0,016**	**-0,195**	**-0,338**	**0,267**	**0,004**
19	-0,255	-0,587	-0,362	-1,142	-1,304	-0,124
20	-0,492	-0,143	-0,990	-1,307	-0,245	-0,209
21	-0,733	-0,286	-0,893	-1,167	-0,050	-0,194
22	-0,572	-1,426	0,167	-0,094	-0,536	-0,199
23	-1,761	-0,318	-0,359	-0,183	-1,428	-0,040
24	-2,072	-1,589	-0,364	-1,240	-1,076	-0,336
Group 6	**-0,981**	**-0,725**	**-0,467**	**-0,856**	**-0,773**	**-0,184**

To return to section press: *Appendix 25*

Appendix 26 : Wine duty UK

Type of wine or made wine	Strength (ABV)	Rate per litre
Still	More than 1.2%, up to 4%	91.68 pence
Still	More than 4%, up to 5.5%	126.08 pence
Still	More than 5.5%, up to 15%	297.57 pence
Still	More than 15%, up to 22%	396.72 pence
Sparkling	More than 5.5% but less than 8.5%	288.10 pence
Sparkling	More than 8.5%, up to 15%	381.15 pence
Source: GOV.UK. Tax on shopping and services - Alcohol and tobacco duties. 2020.		

To return to section press: *Appendix 26*

Appendix 27 : Custom Procedures in South Korea

Customs procedures
Standard
• Certification of Registration of Importers of Foodstuffs • Registration of Foreign Manufacturers of Foodstuffs • License to Import and Deal in Alcohol • Import Declaration for Foodstuffs • Country of Origin Labelling
Extra
• Import Permit for Goods in Approved Packaging Materials (if packaging materials are outlined in the Act on the Promotion of Saving and Recycling of Resources) • Certificate of Organic Food (if wine will be labelled or sold as organic).
Source: European Commission. 2019.

To return to section press: *Appendix 27*

Appendix 28 : Labelling Rules in South Korea

Labelling rules
Labels must include: • Product Name • Country of origin • Product Type • Importer's name, address, and phone number • Date of bottling • Alcohol percentage and product volume • Name of major ingredients • Name of place where the product can be returned or exchanged in case the product has any defect • Instructions for proper storage • Name of food additives used • Mandatory health warning clause • Mandatory warning clause against liquor sales to minors. • Name of designated distribution channel (if bottles are sold in retail stores
Source: European Commission. 2019.

To return to section press: *Appendix 28*

A Work Project presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

PORTUGUESE WINE SME COMPETITIVENESS – FINANCIAL ASSESSMENT OF SOUTH KOREA ENTRY STRATEGY

RUI PEDRO FIGUEIRA DA SILVA FERREIRA

Work project carried out under the supervision of:

Professor João Pedro Delgado

04-01-2021

Abstract

Pimentel is a Portuguese SME competing in the wine industry. Considering its intent to expand into new foreign markets, a financial assessment was carried out to support the entry strategy and marketing recommendations for South Korea. Such analysis was based on a capital budgeting methodology with the objective of finding the appropriate Discounted Cash Flows for a five-year project. The attained Net Present Value for the South Korean internationalization showcased that investing in the project would be a viable option. The robustness of such decision was further corroborated through a detailed sensitivity analysis.

Keywords: Entry Strategy, Financial Analysis, Internationalization, Market Selection, SME Competitiveness, South Korea, Strategic Analysis, Wine

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

1. South Korea Financial Assessment

To comprehend the viability of the suggested entry in South Korea and respective marketing plan, a financial assessment that considers revenues, costs, Net Working Capital (NWC) and investment decision tools such as the Net Present Value (NPV) and Internal Rate of Return (IRR) will be carried out. The cash flows discounted at a proper rate (DCFs) will stress the first five years of the suggested strategy, crucial for this prospective market to succeed (Pinkasovitch 2020), and have an undefined starting period to allow the company to choose the best moment to pursue the strategy. Lastly, a sensitivity analysis will be performed to test how the change of some variables can impact the feasibility of the project.

2. Limitations

2.1. Revenue Limitations

The first approach to estimate revenues in South Korea was an attempt to perform a benchmark of how other wine SMEs behave in this market in terms of sales and growth. However, besides companies not revealing their performance values publicly, South Korea consists of an emergent market with less information available. Therefore, to estimate the yearly revenues, the most suitable approach was to use internal company information for countries that could potentially serve as a benchmark for the market. As such, Brazil, which is both an emergent market and a country in which Pimentel sells in supermarkets was considered to serve as a reference when penetrating this channel in South Korea in year one. For the entry in on-trade sector in the second year, the most appropriate country to benchmark was Denmark as its sales derive from this channel and can serve as a reference.

2.2. Cost Limitations

Given the limited availability of market information, the approach followed on the estimation of costs implied several assumptions that diminished the robustness of the results. Indeed, all costs were based on the market's expected revenues, such that they became subject to the same limitations as revenues.

Moreover, in attaining the cost of goods sold, Pimentel's average reported gross margin was assumed to be applicable to Douro and Port wines, despite being representative of the entire portfolio of the company, which includes various categories of wine and complement products. In estimating marketing costs, given that Pimentel does not have a specific department, as such activities are carried out by distributors, no internal costs could be retrieved to provide meaningful insights, such that they took research into consideration. Furthermore, the costs associated with the fair the company is expected to attend, other Asian event's costs were assumed as representative, as information was not displayed to the general public. Conversely, influencers' costs were based on the German values, as per the financial assessment for Germany. Lastly, with Pimentel's personnel salaries not being provided, an average industry salary was assumed in computing such expenses.

3. *Free Cash Flow Components*

3.1. Revenues

To better understand the approach followed to estimate revenues in each channel, an independent analysis was conducted and will be explained in the following subchapters. The first one will consider the supermarket penetration and the second the on-trade presence.

I. Supermarkets and Hypermarkets

As already mentioned, Brazil was the selected country to benchmark the supermarkets and hypermarkets' estimated revenues in South Korea. It is noticeable that South Korea and Brazil are not in the same cluster, however, the countries in South Korea's cluster were not used as a benchmark as they do not reflect growths ambitioned to be replicated. Thus, in addition to its emerging market feature and the channel used, Brazil was the chosen country.

The employed approach began by firstly capturing Brazil's supermarket and hypermarket value from 2017 to 2019, having as starting point the total wine industry value (Statista 2020, Euromonitor International 2020), reflected in *Appendix 29.* Then, Pimentel's sales in this country were equated towards supermarkets and hypermarkets total value to understand the market share in the channel, depicted in *Appendix 30.* The use of the last three years available had both the intent of capturing the market share in each year in Brazil and accounting for its revenues' noticeable growth. To replicate these values in South Korea, this market's supermarket and hypermarket value had to be calculated. To estimate the correspondent sales of South Korea according to the last three years of Brazil's market share, the South Korean market value considered was of the last available year. As such, from a total wine industry value of €1 361 million in 2019, the supermarket and hypermarket value corresponded to €298 million (Statista 2020, Euromonitor International 2020), as displayed in *Appendix 31*.

By applying this value to the last three years' available market share of Brazil, the equivalent revenues that would occur in the South Korean market were attained, €1 726.57, €3 296.40, and €38 767.47, respectively. However, the entry strategy in South Korea is supported by a marketing plan that aims at obtaining higher revenues in the first years. Therefore, an average of these sales was conducted to obtain a reference for the estimated revenue value in the first year, reaching a value of €14 596.81 (*Appendix 32*). To estimate the growth in yearly revenues, a constant growth rate was assumed, based on the sales growth of Brazil in the three available years. Nevertheless, given that Brazil represents a market in which the partner was the one demanding Pimentel's product rather than the company seeking to expand, the growth from the three-period under analysis in Brazil was adjusted to a five-period in South Korea, as showcased in *Appendix 33*. *Table 18* represents the previously described approach and showcases the expected revenues for the channels in the period under analysis. The distinction between Douro and Port is based on the company's sales from 2017 to 2019, with Douro representing 72.79% and Port 27.21%, when considering both categories' sales.

Table 18: Expected Revenues in Supermarkets and Hypermarkets from Year 1 to Year 5

Year		Year 1	Year 2	Year 3	Year 4	Year 5
Category	Douro	10 624,34 €	23 043,72 €	49 980,81 €	108 406,16 €	235 128,16 €
	Port	3 972,47 €	8 616,12 €	18 687,98 €	40 533,39 €	87 915,14 €
Total Sales in Supermarkets & Hypermarkets		**14 596,81 €**	**31 659,84 €**	**68 668,79 €**	**148 939,56 €**	**323 043,30 €**
Expected Growth (assumed constant)		-	**116,9%**			

Moreover, to complement the revenue assessment in South Korea, it was estimated the average prices Pimentel would practice in the off-premise channels and hence, the quantities to be sold in each year of the analysis. *Appendix 34* summarizes such values according to previously defined pricing strategy.

II. On-trade

As per the defined entry plan, Pimentel will enter the on-trade segment in the second year of the project. To estimate the revenues in this channel the approach followed was the same as the one in supermarkets and hypermarkets. Still, the country used for benchmarking the channel was Denmark, as it is the best representative country within Pimentel's geographic locations.

Similar to Brazil, the logic followed was to determine the on-trade value from 2017 to 2019 (Statista 2020), which is described in *Appendix 35*. Then, the market share Pimentel had in the on-trade channel was computed, as shown in *Appendix 36,* and used as a reference to calculate the expected sales for the on-trade in South Korea. The observation of Denmark sales is based on the last three years to absorb the growth that occurred in this market, especially in the last year. Furthermore, the expected market shares of the last three years were translated into the South Korean market, by considering the last available year of the wine industry (Statista 2020), as reflected in *Appendix 37*. From the achieved values for the expected revenues of €4 918.43, €7 632.61, and €23 169.07 from 2017 to 2019, respectively, an average was derived. The reasoning for the calculation of an average value was to have an initial revenue that reflects a more proactive market approach. As such, in the second year when entering the on-trade channel, Pimentel has a goal of making €11 906.70 in sales (*Appendix 38*). From this year onwards, a growth based on Denmark's one from the last three years was assumed. However, similarly to Brazil, this growth was adjusted to a four-year period to account for the inexperience in this channel and to maintain coherency. To estimate the growth in yearly revenues, a constant rate was assumed, as showcased in *Appendix 39*. *Table 19* displays the estimated revenues for South Korea in the on-trade channel from the second to the fifth year.

Table 19: Expected On-trade Revenues from Year 2 to Year 5

Year		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Category	Douro	-	8 666,33 €	14 583,19 €	24 539,71 €	41 293,94 €
	Port		3 240,37 €	5 452,70 €	9 175,47 €	15 439,93 €
Total Sales in On-trade			**11 906,70 €**	**20 035,88 €**	**33 715,18 €**	**56 733,87 €**
Expected Growth (assumed constant)			**-**	**68,27%**		

According to previously defined pricing strategy, an estimation of prices and quantities Pimentel would put into practice for the on-trade channel was also identified to support the referred revenue analysis (*Appendix 40*).

III. Overall South Korea Sales

Table 20 provides an aggregate view on the overall sales of South Korea considering both supermarkets and hypermarkets and the on-trade sector, as these are the channels to consider when testing the profitability of the project, besides the expected annual growth rate.

Table 20: Expected Overall Revenues from Year 1 to Year 5

Year		Year 1	Year 2	Year 3	Year 4	Year 5
Category	Douro	10 624,34 €	31 710,06 €	64 564,00 €	132 945,87 €	276 422,11 €
	Port	3 972,47 €	11 856,49 €	24 140,68 €	49 708,87 €	103 355,07 €
Total Sales		**14 596,81 €**	**43 566,54 €**	**88 704,67 €**	**182 654,74 €**	**379 777,17 €**
Expected Growth Rate per year		**-**	**198%**	**104%**	**106%**	**108%**

3.2. Costs

The expansion to South Korea does not require any fixed investment outlay rather than personnel expenditures. The estimated variable costs, which account for marketing expenses, largely depend on the above-estimated revenues. Hence, there is a degree of uncertainty associated with the computed costs (Nickolas 2020).

I. Cost of Goods Sold

In determining the cost of goods sold (COGS), the expenses directly linked to manufacturing the company's products must be accounted for. By definition, this implies materials and direct labour expenditures (Janson 2020). In estimating the cost of sales, Pimentel's 2017 to 2019 average gross margin of 48.94% was considered to remain constant throughout the project's lifetime and to be alike for Douro and Port wine categories (*Appendix 41*). *Table 21* provides a depiction of the estimated COGS for each year in which Pimentel registers sales.

Table 21: South Korea Cost of Goods Sold

Year		Year 1	Year 2	Year 3	Year 4	Year 5
Supermarkets and Hypermarkets						
Category	Douro	5 424,32 €	11 765,10 €	25 517,98 €	55 347,37 €	120 046,00 €
	Port	2 028,17 €	4 399,01 €	9 541,25 €	20 694,55 €	44 885,56 €
Total		**7 452,48 €**	**16 164,11 €**	**35 059,23 €**	**76 041,92 €**	**164 931,56 €**
On-trade						
Category	Douro	-	4 424,65 €	7 445,53 €	12 528,88 €	21 082,85 €
	Port	-	1 654,39 €	2 783,91 €	4 684,59 €	7 882,94 €
Total		**-**	**6 079,03 €**	**10 229,43 €**	**17 213,47 €**	**28 965,79 €**
Total COGS		**7 452,48 €**	**22 243,14 €**	**45 288,67 €**	**93 255,39 €**	**193 897,35 €**

II. Operating Expenses

In assessing the Operating Expenses (OPEX), only the expected marketing and personnel expenses were deemed as relevant. Specifically, Pimentel is not expected to incur other expenses, as the entry strategy contemplates that the partners incur in all the costs associated with transporting and selling the products, with the company carrying out its production activity normally (Kenton 2020). With the lack of in-house marketing impeding Pimentel to control its brand activation and promotion across foreign markets, the outlined strategy implied keeping these activities at the company's responsibility rather than the importer's.

a. Marketing Expenses

To determine an appropriate budget for Pimentel's marketing, 10% of the following year's estimated sales were assigned to promotion and branding-related activities, as surveys showed that SMEs tend to spend this amount of revenue on such actions (Carvalho 2011). Hence, an attempt at assigning 10% of the coming year's revenues in South Korea to the country's marketing budget was carried out. Nevertheless, upon assessing the costs pertaining to travelling to fairs and contests, such percentage was insufficient, especially in the first three periods since corresponding revenues are relatively small. However, growth in the South Korean market is expected to be significant. Therefore, to assign a more suitable budget, the average yearly revenue of the five-year project was computed, allocating 10% of such revenue as a marketing budget to each of the three initial periods. Furthermore, from the fourth year onwards, the budget was kept constant, amounting to 10% of the fifth year expected revenue, to avoid its continuous increase.

Table 22: South Korea Marketing Costs

Year	Year 0	Year 1	Year 2	Year 3	Year 4 and Year 5
Marketing Costs	10% of the average yearly revenue of the 5-year project			10% of the following year's revenues	
Total Budget	**14 186,00 €**	**14 186,00 €**	**14 186,00 €**	**18 265,47 €**	**37 977,72 €**
Marketing Activities Costs					
Fairs	5 138,50 €	5 138,50 €	5 138,50 €	5 138,50 €	5 138,50 €
Website	4 000,00 €	2 000,00 €	1 000,00 €	1 000,00 €	1 000,00 €
Redesign Label & Branding	3 128,94 €	-	-	-	-
QR Code Campaign	-	1 500,00 €	1 500,00 €	1 500,00 €	1 500,00 €
Video in Estate	-	3 000,00 €	-	-	-
Contests	1 918,56 €	1 918,56 €	1 918,56 €	1 918,56 €	1 918,56 €
In-Store Campaigns	-	628,94 €	1 628,94 €	4 708,41 €	16 420,66 €
Influencers	-	-	3 000,00 €	4 000,00 €	12 000,00 €

As per *Table 22*, the expected budget for each year contemplated the activities deemed as most relevant, assigning a specific value to each one.

The participation in the Seoul International Wines & Spirits Expo was deemed as crucial in establishing the relevant industry connections, being expected to occur in all the periods under assessment, as the company is expected to continuously seek to increase its network. In estimating the costs for such participation, given the lack of openly disclosed information regarding the event, ProWine Asia (which occurs in Singapore) was assumed as a base scenario for estimating the expenses of attending the Seoul fair. As displayed in *Appendix 42,* the cost discrimination encompasses participation and travelling expenses. Under such conditions, assuming that Pimentel would hold a six square metre stand with two company employees attending the event, the expected cost was €5 138.50 (ProWine Asia 2020). Furthermore, to gain greater visibility among local magazines, blogs, and the overall consumer base, yearly participation in contests was also considered relevant. With the Korea Wine Challenge being the main wine contest in South Korea, *Appendix 43* showcases the expected cost of participation, under the assumption that twelve wines would be submitted. Additionally, the transportation costs were estimated through a simulator by the main Portuguese mail company, CTT, that provides an estimate for international shipments (CTT 2020). Under the described assumptions, the contest would bear a yearly cost of €1 918.56 (Korea Wine Challenge 2020).

Furthermore, given the differences between the Portuguese and Korean markets, the development of a Korean website for Pimentel was assigned a €4 000 and €2 000 value for the two initial periods, respectively, with the following years' maintenance expenditure corresponding to €1 000 (Carney 2020).

Moreover, given that in year zero the company must develop new product labels that are compliant with the Korean exporting regulations, the remainder of the budget was assigned to such activities, to be carried out by the company's designer, with the aid of a translator.

For the other years, costs pertaining to some of the outlined campaigns were defined. One of these ventures includes the development of a video whereby a Korean actor is hired to visit the estate and showcase the scenery associated not only with Pimentel's property but also with Portugal, to boost brand interest (Advids 2020). This would be a one-off project, to be carried out in the first year, being further described in *Appendix 44*. Another campaign would be to print QR codes in a selected number of wine bottles, whereby the scanning of the code would register the customer in a giveaway to a trip to Pimentel, with the estimated cost of €1 500 (QrTiger 2019), being further depicted in *Appendix 45*. Additionally, from year two onwards, the company may also carry out influencer marketing, to reach an extended customer base. As mentioned in *Cost Limitations* section, the estimated costs arose from German figures, rather than Korean ones, as the latter lacked information pertaining to costs (Hype - Journal 2020). Despite the marketing recommendation for an agency to manage influencer activities, under this financial analysis, the costs associated refer to the direct contact between Pimentel and each influencer. *Appendix 46* provides further information on the calculated value.

Lastly, the remainder of each year's budget (with the exception of year zero) was assigned to other in-store campaigns or events, to be determined by the marketing team.

b. Personnel Expenses

Personnel costs were also contemplated, as time must be dedicated to this new market. In doing so, a base salary of €30 000 yearly was assumed for each position. Such compensation implies, from the company's perspective, a yearly cost of €39 002.73, as it must consider the relevant subsidies and taxes (CGD 2015), as per *Appendix 47*. To allocate a percentage of time, and therefore costs of this specific project, the relevance of South Korea's revenues in year five was assessed in relation to Pimentel's expected total revenue in the same period. Under the assumption that no other expansion is pursued during this internationalization project, and the company's revenue growth comes solely from the Korean market, total revenue from the company can be estimated by the sum of Pimentel's revenues in the last available year (2019) with the project's revenues in year five. Thus, South Korea's derived weight on sales was 7.49%, with such value being assigned to the salary of both employees of the marketing department and one of the export managers to be involved in the project. Even though such expenses are allocated with revenues as a basis, personnel costs are still regarded as fixed. These operational expenses are further described in *Appendix 48*.

3.3. Net Working Capital

The NWC indicates the short-term financial liquidity of the company, accounting for the difference between current assets and current liabilities. It is important for a company to register a positive NWC as it stipulates the capability of funding current and future operations (short-term), as well as growth (Fernando 2020). For this project, current assets include solely accounts receivable, which indicates partners' credit amounts owed to Pimentel at the end of each year. Therefore, the average collection period of South Korean distributors was to be considered. Nevertheless, due to lack of country-specific data, the value of 32 days for Asia-Pacific Businesses was assumed (Atradius 2020). Given the specific characteristics involving the production process of wine, mainly concerning each year's harvest, and the information disclosed by Pimentel regarding capacity availability towards further expansion projects, no marginal inventory was considered for NWC.

As for current liabilities, which contemplate average accounts payable, the number of Pimentel's payment days was computed based on the company's financial statements, with a period of 123 days being considered. *Appendix 49* provides further details on the methodology applied and formulas used for NWC estimation.

4. Discounted Cash Flow Estimation

After analyzing the required elements, the Free Cash Flows (FCFs) of the five-year project were determined, as displayed in *Appendix 50*. It is important to refer that this project does not entail any investment in physical assets, therefore, Capital Expenditure (CAPEX) and depreciation costs were not considered. Additionally, a proper capital budgeting also takes into consideration the time value of money, thus, the referred FCFs must be discounted (DCFs) to reflect the present value of the project (Pinkasovitch 2020).

To reach an investment decision, the adequate discount rate must be defined, through the Weighted Average Cost of Capital (WACC), which leverages on the defined levels of equity and debt (Hargrave 2020, Kenton 2020). This calculation required the assessment of the industry's levered β by using Professor Aswath Damodaran industry study and then Portuguese components such as the risk-free rate, equity risk premium, default spread, and corporate tax rate (Damodaran 2020, Statista 2020). The applied income tax was 21%, as per Pimentel's historical values, reflecting the Portuguese rate, as any gains from the project will be realized in the home country. Hence, the estimated cost of equity and debt subjected by Pimentel were 4.18% and 11.43%, respectively. Moreover, the last available ratio between equity or debt and the company's value (2019) was assumed as the constant capital structure of Pimentel during the five-year project. Altogether, the determined WACC was 5.98% (*Appendix 51*).

4.1. Project Feasibility

Having determined the WACC, the NPV was assessed, amounting to a positive value of €114 529.47 (*Appendix 52*). Moreover, an IRR of 56.60% showcases the expected return associated with investing in this specific project. From a financial perspective, the project would be considered viable since it is not only expected to generate a positive NPV but also presented an IRR higher than Pimentel's cost of capital, which reflects its opportunity cost. The initial investment would be recovered in 3.73 years. To complement such analysis, the Profitability Index (PI) was also computed. A 7.32 PI confirms the feasibility of the project, as good investments are deemed when the index presents a value higher than 1 (Chen 2020). *Table 23* displays the investment decision tools.

Table 23: NPV, IRR, Payback Period and PI

WACC	NPV	IRR	Payback Period	Profitability Index
5,98%	**114 529,47 €**	**56,60%**	**3,73**	**7,32**

5. *Sensitivity Analysis*

The financial assessment requires a further sensitivity analysis to test its robustness (Pinkasovitch 2020). Several scenarios were tested to evaluate how the NPV would change with alterations in crucial inputs that may naturally vary in the expansion, which will be described in the next sub-chapters.

5.1. Gross Margin Sensitivity

Even though average prices were determined considering the methodology in the pricing strategy for South Korea, Pimentel's negotiation with its partners may result in different price points. Therefore, a sensitivity analysis was performed on potential variations of the firm's Gross Margin for these internationalization prices. On such analysis, it was assumed that quantities and production costs would remain constant and, therefore, any variation in gross margin was solely reflective of percentage changes in price for both Douro and Port categories. As expected, a relative increase in Gross Margin would result in higher NPV and IRR of the five-year project, as depicted in *Appendix 53*. As for the discount rate (WACC), it would not suffer changes with the referred Gross Margin variation through price.

On the other hand, a test was also performed on the Gross Margin variation through the production cost of both Douro and Port categories. Under this scenario, prices and quantities of both products were assumed constant for off-trade and on-trade channels. Similarly, the relative increase in the company's margin would result in higher NPV and IRR values, maintaining the WACC at 5.98% (*Appendix 54*).

5.2. On-trade vs Off-trade Quantity Sensitivity

Another sensitivity was performed to test how the NPV would alter with a quantity variation for the on-trade and off-trade channels in the corresponding first years of expected sales. Under such analysis, the price of the products was kept constant, as well as the growth rate of the estimated revenues. Naturally, when increasing the quantities sold, the value of sales verified in both channels increases by the defined percentage. Therefore, as displayed in *Appendix 55*, a quantity increase above the base cases would affect positively the value of the NPV for the expansion project into South Korea. Furthermore, despite verifying a smaller value, the project would still be viable in the event of a quantity reduction of 25% in one of the channels, or both.

5.3. On-trade vs Off-trade Revenue Growth Sensitivity

Similarly, it was assessed how the impact of a variation in the revenue growth would determine the investment decision of the project. As showcased in *Appendix 56*, revenue growth above the base case for the on-trade and off-trade premises would always increase the value of the NPV of the forecast under analysis. Moreover, another important conclusion provided by the referred scenario is that the project could still be considered whether there was no growth in revenues in one of the defined channels or no revenue growth in overall terms.

5.4. Capital Structure Sensitivity

The capital budgeting methodology and determined NPV are applied to evaluate the investment decision of a given project (Pinkasovitch 2020). Assuming that Pimentel is to pursue such expansion, it has to choose the appropriate financing options concerning the periods where expected losses would be a reality (year zero and one). Therefore, *Appendix 57* depicts the specific amount the company must consider to initially fund its venture, discounted in present terms: €20 830.16. A loan (paying interest equal to the cost of debt) or internal funds corresponding to the referred amount might be options for Pimentel to undertake. According to *Appendix 58*, such value would have minimal effects on WACC and NPV given the capital structure of the company. For that reason, it is also important to assess how different capital structures would affect the WACC and NPV for the five-year project, under the assumption that such structure would remain constant from year zero to five. As displayed in *Appendix 59*, by varying the debt to equity ratio, the value of Pimentel Beta, WACC, and NPV would also suffer adjustments. Despite being positive under the extreme cases of debt or equity, the NPV is higher for reduced WACC values. Such occurs when debt reaches residual values, which also translates into smaller systematic risk (Beta) for Pimentel. However, the optimal capital structure depends mostly on the company's preferences regarding debt financing and the financial risk associated (Hayes 2020).

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Appendixes

Appendixes referred in the main text have hyperlinks that allow the reader to directly consult the supplement information in this section. In order to return to the main text, a hyperlink is also present at the end of each consulted appendix. The numeration considers the previous group submission part.

Appendix 29 : Supermarkets and Hypermarkets Value in Brazil from 2017 to 2019

Value	2017	2018	2019
Wine Industry Value	5 236 567 564,00 €	5 257 185 270,00 €	5 325 553 585,00 €
Off-trade as a % of Wine Industry Value	51,9%	51,2%	50,3%
Off-trade Value	2 717 778 565,72 €	2 691 678 858,24 €	2 678 753 453,26 €
Supermarkets and Hypermarkets percentage of Off-trade value	56,00%		
Supermarkets and Hypermarkets value	1 521 955 996,80 €	1 507 340 160,61 €	1 500 101 933,82 €
Notes: Supermarkets and Hypermarkets percentage of off-trade volume of 2019 assumed constant throughout the three-period analysis. Off-trade volume and value were assumed constant. Furthermore, within the off-trade channel, volume and value were assumed to be equal due to lack of information on super and hypermarket value. **Source:** Statista. 2020. https://www-statista-com.eu1.proxy.openathens.net/outlook/10030000/115/wine/brazil#market-revenue. Euromonitor International. 2020.			

To return to section press: *Appendix 29*

Appendix 30 : Pimentel total Douro and Port market share in Brazil Supermarkets and Hypermarkets

Pimentel Wine Sales in Brazil		**2017**	**2018**	**2019**
Category	Douro	7 506,15 €	16 650,00 €	166 371,66 €
	Port	1 299,24 €	0,00 €	28 501,17 €
Total Sales		8 805,39 €	16 650,00 €	194 872,83 €
Supermarket and Hypermarket Value		1 521 955 996,80 €	1 507 340 160,61 €	1 500 101 933,82 €
Pimentel Market Share in Supermarkets and Hypermarkets, Brazil		0,0006%	0,0011%	0,0130%

To return to section press: *Appendix 30*

Appendix 31 : Supermarkets and Hypermarkets Value in South Korea in 2019

Breakdown from Total Wine Industry Revenues to Super and Hypermarkets Value in South Korea, in 2019	**Value**
Wine Industry Value last available year	1 361 433 412,24 €
Off-trade as a % of Wine Industry Value	32%
Off-trade Value	435 658 691,92 €
Supermarkets and Hypermarkets percentage of Off-trade value	68,5%
Supermarkets and Hypermarkets Value (SHV)	298 426 203,96 €
Source: Statista. 2020. https://www-statista-com.eu1.proxy.openathens.net/outlook/10030000/125/wine/south-korea. Euromonitor International. 2020.	

To return to section press: *Appendix 31*

Appendix 32 : Pimentel's Expected Sales in Year 1 in Supermarkets and Hypermarkets in South Korea

Year	2017 Market Share considering 2019 SHV	2017 Market Share considering 2019 SHV	2017 Market Share considering 2019 SHV
Market Share	0,0006%	0,0011%	0,0130%
Pimentel Estimated Sales	1 726,57 €	3 296,40 €	38 767,47 €
Expected Average Sale in Year 1 *(Note: value considered to apply the expected growth)*	**14 596,81 €**		

To return to section press: *Appendix 32*

Appendix 33 : Pimentel forecasted growth in Supermarkets and Hypermarkets in South Korea

Year	2017	2018	2019
Pimentel Sales in Brazil	8 805,39 €	16 650,00 €	194 872,83 €
Growth in the period[1]		370,44%	
Growth adjusted to a five year period[2]		116,90%	

1: $\sqrt{(€194\,872{,}83 - €8\,805{,}39)} - 1$

2: $\sqrt[4]{(€194\,872{,}83 - €8\,805{,}39)} - 1$

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Appendix 34 : Expected Revenues in Supermarkets and Hypermarkets from Year 1 to Year 5, with Price and Quantity

Category	Average Price
Douro	2,41 €*
Port	6,05 €**
*Such price is based on Brazil's import prices, due to portfolio similarities with the South Korean Market. ** Such price is based on Canada's import prices, due to portfolio similarities with the South Korean Market.	

Year		Year 1	Year 2	Year 3	Year 4	Year 5
Category	Douro	10 624,34 €	23 043,72 €	49 980,81 €	108 406,16 €	235 128,16 €
		4408	**9562**	**20739**	**44982**	**97564**
	Port	3 972,47 €	8 616,12 €	18 687,98 €	40 533,39 €	87 915,14 €
		657	**1424**	**3089**	**6700**	**14531**
Total Sales in Supermarkets & Hypermarkets		**14 596,81 €**	**31 659,84 €**	**68 668,79 €**	**148 939,56 €**	**323 043,30 €**
Expected Growth (assumed constant)		-	**116,9%**			

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Appendix 35 : On-trade Value in Denmark from 2017 to 2019

Year	2017	2018	2019
Overall Industry Value, Denmark	3 676 010 575,52 €	3 627 544 239,60 €	3 538 950 749,92 €
On-trade as a % of Wine Industry Value	65,20%	66%	66,20%
On-trade value	2 396 758 895,24 €	2 394 179 198,14 €	2 342 785 396,45 €
Source: Statista. 2020. https://www-statista-com.eu1.proxy.openathens.net/outlook/10030000/133/wine/denmark.			

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Appendix 36 : Pimentel total Douro and Port market share in Denmark On-trade channels from 2017 to 2019

Pimentel Wine Sales in Denmark		2017	2018	2019
Category	Douro	3 261,84 €	3 068,93 €	19 374,20 €
	Port	9 471,60 €	16 670,04 €	39 257,94 €
Total Sales		12 733,44 €	20 142,79 €	60 673,16 €
On-trade Value		2 396 758 895,24 €	2 394 179 198,14 €	2 342 785 396,45 €
Pimentel Market Share in On-trade, Denmark		0,0005%	0,0008%	0,0025%

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Appendix 37 : On-trade Value in South Korea in 2019

Breakdown from Total Wine Industry Revenues to on-trade value in South Korea	Value
Wine Industry Value last available year (2019)	1 361 433 412,24 €
On-trade as a % of Wine Industry Value	68%
On-trade Value	925 774 720,32 €
Source: Statista. 2020. https://www-statista-com.eu1.proxy.openathens.net/outlook/10030000/125/wine/south-korea.	

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Appendix 38 : Pimentel's Expected Sales in Year 2 in On-trade in South Korea

Year	2017 Market Share considering 2019 SHV	2018 Market Share considering 2019 SHV	2019 Market Share considering 2019 SHV
Market Share from Denmark	0,0005%	0,0008%	0,0025%
Pimentel Estimated Sales	4 918,43 €	7 632,61 €	23 169,07 €
Expected Average Sale in Year 2	**11 906,70 €**		

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Appendix 39 : Pimentel forecasted growth in On-trade channels in South Korea

Year	2017	2018	2019
Pimentel Sales in Denmark	€12 733,44	€20 142,79	€60 673,16
Growth in the period[1]		118,29%	
Growth adjusted to a four year period[2]		68,27%	

1: $\sqrt{(€60\ 673{,}16 - €12\ 733{,}44)} - 1$

2: $\sqrt[3]{(€60\ 673{,}16 - €12\ 733{,}44)} - 1$

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Appendix 40 : Expected On-trade Revenues from Year 2 to Year 5, with Price and Quantity

Category	Average Price
Douro	4,32 €*
Port	10,09 €*
*Such prices are based on Belgium's import prices, due to portfolio similarities with the South Korean Market.	

Year		Year 1	Year 2	Year 3	Year 4	Year 5
Category	Douro	-	8 666,33 €	14 583,19 €	24 539,71 €	41 293,94 €
			2006	**3376**	**5680**	**9559**
	Port		3 240,37 €	5 452,70 €	9 175,47 €	15 439,93 €
			321	**540**	**909**	**1530**
Total Sales in On-trade			**11 906,70 €**	**20 035,88 €**	**33 715,18 €**	**56 733,87 €**
Expected Growth (assumed constant)			**-**	**68,27%**		

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Appendix 41 : South Korea Gross Margin

Pimentel's Overall Value	2017	2018	2019	Average
Sales Revenues	3 868 888,14 €	4 016 434,31 €	5 008 137,71 €	**4 297 820,05 €**
COGS	2 275 278,02 €	1 688 085,69 €	2 619 464,29 €	**2 194 276,00 €**
Gross Margin	**41,19%**	**57,97%**	**47,70%**	**48,94%**

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Appendix 42 : Fair cost South Korea

Company Stand in Fair (ProWine Asia)	
Type:	**Price per square meter:**
1 Stand	463,21 €
Total Cost (6 square meter stand)	**2779,26 €**
Media Fee	
Total Cost (Media Fee)	**170 €**
Exhibitor Pass	
Single Pass (includes comprehensive transport ticket)	54,62 €
Total Cost (2 Exhibitor Passes)	**109,24 €**
Travelling	
Plane Ticket per person (two way)	500,00 €
Nightly accommodation per person (3 to 4-star hotel average, considering that prices tend to increase during the fair)	180,00 €
Total Cost (Travelling)	**2080,00 €**
Total Cost per Fair (3 days)	**5 138,50 €**
Source: ProWine Asia. 2020. https://singapore.prowineasia.com/cost-of-participation.html.	

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Appendix 43 : Contest cost South Korea

Submission in Contests (Korean Wine Challenge):	
Description:	**Charge per wine (VAT included):**
1-3 wines submitted	181,60 €
4-8 wines submitted	156,84 €
9-15 wines submitted	140,33 €
>16 wines submitted	123,82 €
Total Cost (Submission of 12)	**1 683,96 €**
Transportation	
Total Costs (for 12 wines, as per CTT Simulator)	**234,60 €**
Total Contest Cost	**1 918,56 €**
Source: Korea Wine Challenge. 2020. http://www.koreawinechallenge.com/bbs/page.php?hid=schedule.	

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Appendix 44 : Video South Korea

Video Edit/Production*	500,00 €
Hiring Korean actor/personality**	2 000,00 €
Plane Ticket (two way)	500,00 €
Total Cost (Video in Estate)	**3 000,00 €**
*Pimentel tends to produce videos, such that the costs are mainly assigned to the editing of the video, given that filming may be carried out by company staff. **Korean actor/personality is expected to stay at least two nights at the estate, with costs being larger to account for the distance travelled and time of stay.	
Source: Advids. 2020. https://pricing.advids.co/how-much-does-a-video-commercial-cost/.	

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Appendix 45 : QR Code South Korea

Description:	Cost:
QR Code Subscription	85,00 €
Four-night Stay and Estate Experiences	870,00 €*
Plane Ticket (two way)	500,00 €
Expected Cost (per campaign)	1455,00 €
Assumed Value (accounting for miscellaneous)	**1500,00 €****
*Based on Pimentel's "Experience Pack", sold for €435, including a one-night stay at a wine barrel, breakfast at the restaurant, a free Port wine and a double massage in the Vineyard Spa. Given that the value considers the margins applied by the Hotel, it was assumed that adding a second night to the pack will signify a cost of €435 to Pimentel, as margins do not apply to company costs. In South Korea's case, given the considerable geographic distance between the market, a four-night stay was deemed as suitable, with the cost being assumed to be equal to two "Experience Packs". **Each yearly initiative is assumed to require a new QR code subscription.	
Source: QrTiger. 2019. https://www.qrcode-tiger.com/save-money-with-dynamic-visual-qr-codes-and-change-the-url-behind-your-qr-code.	

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Appendix 46 : Influencers South Korea

Influencers (estimated from German data)	
Number of followers	**Value per post**
20 to 100 thousand (Medium Influencer)	1 000 €*
100 thousand to 1 million (Macro Influencer)	6 000 €**
*Medium Influencers are assumed to be hired in Year 2 and Year 3 (three and four posts respectively), due to lower company visibility and budget constraints. **Macro Influencers are assumed to be hired in Year 4 and Year 5 (two posts per year), due to greater brand recognition and budget availability.	
Source: Hype – Journal. 2020. https://hypeauditor.com/blog/state-of-influencer-marketing-in-germany-2/.	

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Appendix 47 : South Korea Salary Costs

Yearly Pay (14 months)	Social Security Rate	Total Social Security Paid	Accident Insurance	Total Accident Insurance	Food Subsidy per day (21 days per month)	Total Food Subsidy (11 months)
30 000€	23,75%	7125	1,00%	300	6,83 €	1577,73 €
Employee's Total Cost	39 002,73 €					
Source: Caixa Geral de Depósitos. 2015. https://www.cgd.pt/Site/Saldo-Positivo/negocios/Pages/custo-trabalhador-empresa.aspx.						

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Appendix 48 : Human Resources Costs South Korea

Pimentel Wine Revenue in 2019	4 689 417,06 €
Estimated Revenues for the Korean Market, in the fifth year of the project	379 777,17 €
Share of South Korea in Overall Sales, in the fifth year of the project	**7,49%**
Human Resources Salary Allocation	
Director of Marketing	2 922,03 €
Digital Marketing Expert	2 922,03 €
Export Manager	2 922,03 €

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Appendix 49 : NWC formulas and components

Net Working Capital formulas
$\boldsymbol{Networking\ capital} = Current\ Assets - Current\ Liabilities$ $\boldsymbol{Current\ Assets} = Average\ Inventory + Average\ Accounts\ Receivables$ $\boldsymbol{Current\ Liabilities} = Average\ Accounts\ Payable$ $n = \{1, \ldots, 5\}\ years$ $\boldsymbol{Average\ Accounts\ Receivables} = \frac{Estimated\ revenues_n}{\#days\ in\ commercial\ year} \times$ $Average\ Collection\ Days$ $\boldsymbol{Average\ Accounts\ Payable} = \frac{Average\ Payment\ Period}{\#days\ in\ commercial\ year} \times\ Expected\ COGS$

NWC overall calculations

NWC Calculation	Year 1	Year 2	Year 3	Year 4	Year 5
Average Inventory	0,00€	0,00€	0,00€	0,00€	0,00€
Average Accounts Receivable	1 297,49€	3 872,58€	7 884,86€	16 235,98€	33 757,97€
Average Collection Period	32	32	32	32	32
Expected COGS	7 452,48€	22 243,14€	45 288,67€	93 255,39€	193 897,35€
Average Accounts Payable	2 555,88€	7 628,43€	15 532,04€	31 982,54€	66 498,34€
Average Payment Period	123	123	123	123	123
Operating NWC	**-1 258,38€**	**-3 755,85€**	**-7 647,18€**	**-15 746,56€**	**-32 740,37€**

Example for year 1
$\boldsymbol{Average\ accounts\ receivables}_{\mathbf{1}} = \frac{14596{,}81}{360} \times 32 = 1297{,}49\ €$ $\boldsymbol{Average\ accounts\ payable}_{\mathbf{1}} = \frac{123}{360} \times\ 7452{,}48 = 2555{,}88\ €$ $\boldsymbol{Operating\ NWC}_{\mathbf{1}} = 1297{,}49 + 0\ - 2555{,}88\ = -1258{,}38\ €$

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Appendix 50 : FCF estimates

FCF Estimate	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Estimated Revenues	0,00€	14 596,81€	43 566,54€	88 704,67€	182 654,74€	379 777,17€
Cost of Goods Sold	0,00€	7 452,48€	22 243,14€	45 288,67€	93 225,39€	193 897,35€
Gross Profit	**0,00€**	**7 144,33€**	**21 323,40€**	**43 416,01€**	**89 399,34€**	**185 879,82€**
Operating Costs	22 952,09€	22 952,09€	22 952,09€	27 031,57€	46 743,81€	46 743,81€
Branding & Promotion budget	14 186,00€	14 186,00€	14 186,00€	18 265,47€	37 977,72€	37 977,72€
Time Dedicated (HR)	8 766,10€	8 766,10€	8 766,10€	8 766,10€	8 766,10€	8 766,10€
EBITDA	**-22 952,09€**	**-15 807,77€**	**-1 628,69€**	**16 384,44€**	**42 655,53€**	**139 136,01€**
Depreciation	0,00€	0,00€	0,00€	0,00€	0,00€	0,00€
EBIT	**-22 952,09€**	**-15 807,77€**	**-1 628,69€**	**16 384,44€**	**42 655,53€**	**139 136,01€**
Tax Rate	21,00%	21,00%	21,00%	21,00%	21,00%	21,00%
Income tax	-4 820,70€	-3 320,16€	-342,08€	3 441,28€	8 959,08€	29 223,20€
NOPAT	**-18 131,39€**	**-12 487,61€**	**-1 286,61€**	**12 943,16€**	**33 696,45€**	**109 912,81€**
CAPEX	0,00€	0,00€	0,00€	0,00€	0,00€	0,00€
NWC	0,00€	-1 258,38€	-3 755,85€	-7 647,18€	-15 746,56€	-32 740,37€
Investment NWC	0,00€	1 258,38€	2 497,46€	3 891,33€	8 099,38€	16 993,81€
FCF	**-18 131,39€**	**-11 229,22€**	**1 210,85€**	**16 834,49€**	**41 795,83€**	**126 906,62€**

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Appendix 51 : WACC Computation

Determining the Cost of equity:

$$R_e = R_f + \beta \times ERP$$

Component	**Description**
R_f	Risk-free rate of return
$\boldsymbol{\beta}$	Measure of risk (Pimentel’s levered beta that accounts for a company’s business and financial risk)
$\boldsymbol{ERP}$	Equity Risk Premium (excess return earned by an investor, by investing in the stock market rather than on a risk- free asset)
Source: Investopedia. 2020. https://www.investopedia.com/terms/c/costofequity.asp.	

Considering that Pimentel is not a publicly-traded company, the pure-play model was employed to determine a comparable beta for the company. This model states that by assuming an average levered beta from an industry (which accounts for both the business and financial risk) and adjusting it to only consider the business risk, it is possible to reach an unlevered beta. Therefore, from this unlevered beta one adjusts it to the project’s target capital structure, achieving the appropriate beta for the project.

These computations were performed based on Professor Damoradan study of 51 companies from the Alcoholic Beverage industry:

Industry	Alcoholic Beverages
Number of firms	51
Levered beta	0,60
Unlevered beta	0,45

Leveraging the Beta: $Levered\ Beta = Unlevered\ Beta \times (1 + (1 - t) \times \frac{D}{E})$

For simplicity, the capital structure of Pimentel is assumed to remain constant throughout the life of the project.

Unlevered Beta	0,45
Corporate tax rate (t)	21%
Total Equity	2 437 874,84 €
Total Liabilities	4 938 927,45 €
Pimentel's $\frac{D}{E}$ ratio	2,026
Pimentel's Beta	1,16

Recalling the Cost of Equity formula:

$$\boldsymbol{R_e = R_f + \beta \times ERP}$$

The risk-free rate was assumed to be the Portuguese one from Statista, with a value of 1,60%.

The estimated ERP also considers Damodaran estimations. The total ERP for Portugal considers a base ERP from mature markets with very low risk (assumes a default spread of 0%) and adds to it a specific Country Risk Premium. As such, the total Portuguese ERP is 8,46% (base ERP of 5,23% and CRP of 3,23%).

Therefore, Pimentel's Cost of Equity is expected to be:

$$\boldsymbol{R_e = R_f + \beta \times ERP = 1,60\% + 1,16 \times 8,46\% = 11,41\%}$$

Determining the Cost of Debt:

$$\boldsymbol{R_d = (R_f + default\ Spread)}$$

Component	**Description**
$\boldsymbol{R_f}$	Risk-free rate of return

$\boldsymbol{Default\ Spread}$	Default spread based on Country's sovereign rating (Moody's or S&P)

The risk-free considered was the previously described 1,6%.

The default spread was based on the Country's sovereign rating of Baa3, with an estimated value of 2,58%.

Therefore, Pimentel's expected Cost of Debt:

$\boldsymbol{R_d = R_f + default\ Spread = 1,60\% + 2,58\% = 4,18\%}$

Determining WACC:

$$\boldsymbol{WACC = \frac{E}{V} \times R_e + \frac{D}{V} \times R_d \times (1 - t)}$$

Component	Description	Value
E	Market value of Pimentel Equity	**2 437 874,84 €**
D	Market Value of Pimentel Debt	**4 938 927,45 €**
V	Pimentel Market Value ($V = E + D$)	**7 376 802,29 €**
$\frac{E}{V}$	Percentage of financing that is equity	**33,05%**
$\frac{D}{V}$	Percentage of financing that is debt	**66,95%**
R_e	Cost of equity	**11,41%**
R_d	Cost of Debt	**4,18%**
t	Corporate tax rate	**21%**
Source: Investopedia. 2020. https://www.investopedia.com/terms/w/wacc.asp.		

$$\boldsymbol{WACC = \frac{E}{V} \times R_e + \frac{D}{V} \times R_d \times (1 - t)}$$

$$\boldsymbol{= (33,05\% \times 11,41\%) + (66,95\% \times 4,18\% \times (1 - 21\%)) = 5,98\%}$$

Therefore, the appropriate project discount rate is 5,98%.

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Appendix 52 : NPV estimation

Year	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
FCF	-18 131,39€	-11 229,22€	1 210,85€	16 834,49€	41 795,83€	126 906,62€
DCF	**-18 131,39€**	**-10 595,33€**	**1 078,00€**	**14 141,45€**	**33 127,72€**	**94 909,02€**

Formula assessed in the calculation of NPV

$$NPV = \frac{FCF_0}{(1+WACC)^0} + \frac{FCF_1}{(1+WACC)^1} + \frac{FCF_2}{(1+WACC)^2} + \frac{FCF_3}{(1+WACC)^3} + \frac{FCF_4}{(1+WACC)^4} + \frac{FCF_5}{(1+WACC)^5} = 114\,529{,}47€$$

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Appendix 53 : Gross Margin Variation through Price

Gross Margin	Douro Off-trade	Port Off-trade	Douro On-trade	Port On-trade	NPV	IRR	WACC
25,0%	1,64 €	4,12 €	2,94 €	6,87 €	22 521,61 €	24,46%	5,98%
27,5%	1,70 €	4,26 €	3,04 €	7,11 €	29 268,36 €	28,47%	5,98%
30,0%	1,76 €	4,41 €	3,15 €	7,36 €	36 500,30 €	32,27%	5,98%
32,5%	1,82 €	4,58 €	3,27 €	7,63 €	44 271,69 €	35,89%	5,98%
35,0%	1,89 €	4,75 €	3,39 €	7,93 €	52 645,19 €	39,36%	5,98%
37,5%	1,97 €	4,94 €	3,53 €	8,24 €	61 693,57 €	42,69%	5,98%
40,0%	2,05 €	5,15 €	3,68 €	8,59 €	71 501,79 €	45,90%	5,98%
42,5%	2,14 €	5,37 €	3,84 €	8,96 €	82 169,70 €	49,00%	5,98%
45,0%	2,24 €	5,62 €	4,01 €	9,37 €	93 815,43 €	52,01%	5,98%
47,5%	2,34 €	5,88 €	4,20 €	9,81 €	106 579,78 €	54,94%	5,98%
Base Case	**2,41 €**	**6,05 €**	**4,32 €**	**10,09 €**	**114 529,47 €**	**56,600%**	**5,98%**
50,0%	2,46 €	6,18 €	4,41 €	10,30 €	120 631,93 €	57,796%	5,98%
52,5%	2,59 €	6,50 €	4,64 €	10,85 €	136 176,95 €	60,585%	5,98%
55,0%	2,73 €	6,86 €	4,90 €	11,45 €	153 465,86 €	63,317%	5,98%
57,5%	2,90 €	7,27 €	5,19 €	12,12 €	172 809,24 €	66,000%	5,98%
60,0%	3,08 €	7,72 €	5,51 €	12,88 €	194 596,01 €	68,642%	5,98%
62,5%	3,28 €	8,24 €	5,88 €	13,74 €	219 319,73 €	71,252%	5,98%
65,0%	3,52 €	8,83 €	6,30 €	14,72 €	247 616,34 €	73,837%	5,98%
67,5%	3,79 €	9,50 €	6,79 €	15,85 €	280 319,36 €	76,408%	5,98%
70,0%	4,10 €	10,30 €	7,35 €	17,17 €	318 543,04 €	78,974%	5,98%

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Appendix 54 : Gross Margin Variation through Production Cost

Gross Margin	Douro off-trade Production Cost	Port off-trade Production Cost	Douro on-trade Production Cost	Port on-trade Production Cost	WACC	NPV	IRR
55%	1,08 €	2,72 €	1,94 €	4,54 €	5,98%	134 903,29 €	63,03%
50%	1,21 €	3,03 €	2,16 €	5,05 €	5,98%	118 080,88 €	57,75%
Base Case	**1,23 €**	**3,09 €**	**2,21 €**	**5,15 €**	**5,98%**	**114 529,47 €**	**56,60%**
45%	1,33 €	3,33 €	2,38 €	5,55 €	5,98%	101 258,46 €	52,16%
40%	1,45 €	3,63 €	2,59 €	6,05 €	5,98%	84 436,05 €	46,20%
35%	1,57 €	3,93 €	2,81 €	6,56 €	5,98%	67 613,63 €	39,78%
30%	1,69 €	4,24 €	3,02 €	7,06 €	5,98%	50 791,22 €	32,79%
25%	1,81 €	4,54 €	3,24 €	7,57 €	5,98%	33 968,81 €	25,06%
20%	1,93 €	4,84 €	3,46 €	8,07 €	5,98%	17 146,39 €	16,34%
15%	2,05 €	5,14 €	3,67 €	8,58 €	5,98%	323,98 €	6,20%
10%	2,17 €	5,45 €	3,89 €	9,08 €	5,98%	-16 498,44 €	-6,15%
5%	2,29 €	5,75 €	4,10 €	9,59 €	5,98%	-33 320,85€	-22,39%

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Appendix 55 : On-trade vs Off-trade Quantity Variation (effects on NPV)

Off-trade (Year 1 Qt Variation)	On-trade (Year 2 Qt Variation)					
	-25%	**Base Case**	**+25%**	**+50%**	**+75%**	**+100%**
-25%	85 380,19 €	90 749,17 €	96 125,48 €	101 509,05 €	106 899,82 €	112 297,73 €
Base Case	109 119,60 €	**114 529,47 €**	119 946,33 €	125 370,10 €	130 800,75 €	136 238,20 €
+25%	133 087,31 €	138 536,17 €	143 991,68 €	149 453,80 €	154 922,46 €	160 397,62 €
+50%	157 272,73 €	162 758,78 €	168 251,17 €	173 749,87 €	179 254,82 €	184 765,98 €
+75%	181 665,90 €	187 187,44 €	192 715,06 €	198 248,69 €	203 788,30 €	209 333,83 €
+100%	206 257,45 €	211 812,91 €	217 374,17 €	222 941,19 €	228 513,92 €	234 092,31 €

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Appendix 56 : On-trade vs Off-trade Revenue Growth Variation (effects on NPV)

Off-trade Growth	On-trade Growth					
	0%	**25%**	**50%**	**Base Case**	**75%**	**100%**
0%	27 850,79 €	31 004,04 €	34 942,74 €	38 381,60 €	39 776,73 €	45 624,93 €
25%	35 872,47 €	39 035,90 €	42 989,66 €	46 443,09 €	47 844,41 €	53 719,75 €
50%	47 304,19 €	50 485,80 €	54 466,44 €	57 945,87 €	59 358,22 €	65 282,01 €
75%	63 180,52 €	66 391,13 €	70 414,66 €	73 935,58 €	75 365,55 €	81 366,67 €
100%	84 794,55 €	88 047,51 €	92 133,68 €	95 715,19 €	97 170,90 €	103 285,01 €
Base Case	103 463,89 €	106 753,92 €	110 894,90 €	**114 529,47 €**	116 007,71 €	122 220,76 €
125%	113 790,64 €	117 100,93 €	121 271,91 €	124 935,50 €	126 426,07 €	132 693,27 €
150%	152 271,22 €	155 653,98 €	159 932,17 €	163 699,56 €	165 234,23 €	171 695,14 €
175%	202 894,24 €	206 362,86 €	210 768,14 €	214 658,61 €	216 245,58 €	222 936,38 €
200%	268 930,60 €	272 494,88 €	277 041,81 €	281 069,54 €	282 714,86 €	289 662,24 €

To return to section press: *Appendix 56*

Appendix 57 : Financing Value for Year 0 and Year 1

The value estimated followed the formula: Gross Profit – Branding and Promotion Costs. Final amount discounted to its present value.		
Components	**Year 0**	**Year 1**
Gross Profit	-	7 144,33 €
Branding and Promotion	14 186,00 €	14 186,00 €
Financing Value	14 186,00 €	7 041,67 €
PV of Financing Value	20 830,16 €	

To return to section press: *Appendix 57*

Appendix 58 : Impact on Capital Structure

2019 Pimentel Capital Structure	
Assets	7 376 802,29 €
Equity	2 437 874,84 €
Liabilities	4 938 927,45 €

Financing Decision	Internal Financing	All Debt
Estimated financing value for the project*	20 830,16 €	20 830,16 €
Assets	7 355 972,13 €	7 355 972,13 €
Equity	2 417 044,68 €	2 437 874,84 €
Liabilities	4 938 927,45 €	4 959 757,61 €
Debt Ratio	67,14%	67,42%
Equity Ratio	32,86%	32,58%
Debt to Equity Ratio	204,34%	206,98%
Pimentel Beta	1,166133968	1,175456806
Cost of Equity	11,47%	11,54%
Cost of Debt	4,18%	4,18%
WACC	5,9845%	5,9871%
NPV	114 519,04 €	114 503,46 €
*correspond to at least the branding and promotion budget not able to be paid from the specific year revenues, as the personnel expenses are already a company fixed cost		

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Appendix 59 : Capital Structure Variation

Debt Ratio	Equity Ratio	Debt to Equity Ratio	Pimentel Beta	Cost of Equity	Cost of Debt	WACC	NPV
0%	100%	0%	0,446	5,37%	4,18%	5,37%	118 274,81 €
10%	90%	11%	0,485	5,70%	4,18%	5,46%	117 707,53 €
20%	80%	25%	0,534	6,12%	4,18%	5,56%	117 143,04 €
30%	70%	43%	0,597	6,65%	4,18%	5,65%	116 581,32 €
40%	60%	67%	0,681	7,36%	4,18%	5,74%	116 022,37 €
50%	50%	100%	0,798	8,35%	4,18%	5,83%	115 466,15 €
60%	40%	150%	0,975	9,85%	4,18%	5,92%	114 912,67 €
67%	33%	203%	1,160	11,41%	4,18%	5,98%	114 529,47 €
70%	30%	233%	1,268	12,33%	4,18%	6,01%	114 361,89 €
80%	20%	400%	1,856	17,30%	4,18%	6,10%	113 813,81 €
90%	10%	900%	3,618	32,20%	4,18%	6,19%	113 268,41 €

To return to section press: *Appendix 59*